BRANDEIS UNIVERSITY
LIBRARY

Learned Journal Patron

Honoring

Mrs. Gordon Becker

Gift of

Baltimore Chapter - Board Members

BRANDEIS UNIVERSITY
NATIONAL WOMEN'S COMMITTEE

Digitized by the Internet Archive
in 2011 with funding from
Boston Library Consortium Member Libraries

http://www.archive.org/details/journalofpsychoa810asso

JOURNAL OF PSYCHO-ASTHENICS

Devoted to the

Care, Training and Treatment of the Feeble-Minded and of the Epileptic.

Volume 8

1903/1904

Reprinted with the permission of
The American Association on Mental Deficiency, Inc.

JOHNSON REPRINT CORPORATION
111 Fifth Avenue, New York, N.Y. 10003

JOHNSON REPRINT COMPANY LIMITED
Berkeley Square House, London, W. 1

RC 321
J84
v. 8-10
Sept. 1905-
June 1906

First reprinting, 1964, Johnson Reprint Corporation

PRINTED IN THE UNITED STATES OF AMERICA

CONTENTS FOR SEPTEMBER, 1903.

ORIGINAL ARTICLES:

Contribution to the Study of the Growth of the Feeble-Minded in Height and Weight, (Illustrated), A. R. T. Wylie, Ph, D., Faribault Minnesota, - - - - - - 1
Discussion - - - - - - - 7

Industrial Training—Its Place in Schools for the Feeble-Minded, C. Emerson Nash, Vineland, N. J., - - - 8
Discussion - - - - - - - 11

The Importance of Well-Made and Accurately Reported Autopsies in the Determination of the Etiology of Weak-Mindedness and Idiocy, W. N. Bullard, M. D., Boston, Mass., 11
Discussion - - - - - - - 14

The Etiology of Mental Deficiency, Hubert Richardson, M. D., University of Maryland, - - - - - 16

How Three Boys Learned to Tell Time, Miss Maud R. Stewart, Teacher, Minnesota School for Feeble-Minded, Faribault, 22

CONTENTS FOR DECEMBER, 1903, MARCH, 1904.

ORIGINAL ARTICLES:

Mentally Defective Children in the Public Schools, Walter E. Fernald, M. D., Supt. Mass. School for Feeble-Minded, - - 25

Should the Scope of the Public School System be Broadened to take in all Children Capable of Education, Ellen LeGarde, Director of Physical Training, Providence, R. I., - - 35

Five Years' Experience in Teaching Mentally Defective Children in a Public School, Frances E. Cheney, Springfield, Mass., 39

What Four Months' Training has Done for Walter, Fanny A. Compton, St. Louis, Mo., - - - - 41

Morals, Alice T. Morrison, Vineland, N. J., - - - 45

Some Remarks on the Use of Hyoscine Hydrobromate in the Treatment of the Status Epilepticus, Geo. B. Fadeley, M. D., Falls Church, Va., - - - - - - 48

309880

Notes on Adolph M., 1901-'02, Agnes M. Dillingham, Teacher at the Minnesota School for Feeble-Minded, - - 49

What can Teachers of Normal Children Learn from the Teachers of Defectives, Martin W. Barr, M. D., Chief Physician, Pennsylvania Training School for Feeble-Minded Children, Elwyn, Penn., - - - - - - - 55

EDITORIALS, - - - - - - - - - 60

CONTENTS FOR JUNE, 1904.

ORIGINAL ARTICLES:

President's Address, E. R. Johnstone, Vineland, N. J. - 63

Imbecility and Tuberculosis, C. H. Henninger, M. D., Polk, Pa. 68

Discussion - - - - - - - - - - 71

Entertainments as a Practical Factor in the Training of the Feeble-Minded, Miss Alice Morrison, Vineland, N. J. - 75

Feeble-Minded and Epileptic, J. C. Carson, M. D., Syracuse, N. Y. - - - - - - - - 78

Discussion - - - - - - - - - 82

Minutes - - - - - - - - - 84

Treasurer's Report - - - - - - - - 99

Report on Exhibit - - - - - - - - 99

JOURNAL OF PSYCHO-ASTHENICS.

VOL. VIII. SEPTEMBER, 1903 No. 1

ORIGINAL ARTICLES.

CONTRIBUTION TO THE STUDY OF THE GROWTH OF THE FEEBLE-MINDED IN HEIGHT AND WEIGHT.

A. R. T. WYLIE, PH. D., FARIBAULT, MINN.

I

A NUMBER of studies have been made in recent years on the growth of normal children in height and weight. Nearly all of these have dealt with school children so that the ages studied have been limited to the school period, six to nineteen years. A large number of children have been measured at one time and the averages calculated from these. The resulting curve of growth probably varies somewhat from that which would be obtained by measuring the same individuals in successive years. Thus the earlier ages will have many who will die. And these are most probably those who vary most from the average or normal. However, it has been pointed out that if the measure of the living and deceased is the same the curve would not be affected by these variants. As to this, however, we have no means of knowing. Another variation is produced by the fact that the poorer parents do not send their children to school as long or as constantly as the more well to do. Also the weaker children are in school longer and are not promoted as fast as their stronger mates.

In the study of the growth of the brain it has been found that it attains its greatest weight soon after the oncoming of puberty, remaining fairly constant to twenty when it begins to decline. This has been explained on the supposition that the individuals that have the heaviest brains must die at about this time.

However, from the large number of individuals that have been measured, the effects of these variants are probably well within the limits of physiological variation.

The results of several of these investigations are given in Table I; and, while the conditions have varied somewhat under which the measurements have been made, yet they exhibit a general uniformity.

The curves of growth platted from the statistics of children in Iowa and Great Britain are shown in Plates I and II. The curves presented are sinuous and of a general parabolic form which indicate variations in the rate of growth and that the growth momentum decreases in continually greater amounts to maturity. In looking at the curves more carefully it will be noticed that the first year is a period of rapid growth in all. Then comes a time of slower growth which lasts until about the age of seven years. Then follows a slight retardation which is again noticed at about ten years. From thirteen to seventeen we again have a period of more rapid growth, indicative of the accession of puberty. A retardation is noticed at eighteen and then the curve gradually flattens out and growth in size practically ceases. Just how long one continues to grow has never been definitely determined. Since most of our statistics are taken from school children they do not extend far enough to show this. However, Baxter studied one million recruits and concluded that growth continues to thirty-four years.

Camara found a slight retardation in growth at the time when the child enters school.

The period of retarded growth preceding the pubertal increase President Hall interprets as indicating a period of maturity in our forebears.

Byer in his study of the West Point cadets found retarded growth in height at eighteen years. Other studies have shown morbidity to be high at this period.

In comparing the growth of the boys and girls we find that the curves diverge rapidly during the first year to run parallel to nearly eleven years, the boys being both taller and heavier than the girls during this period. At eleven the girls begin to grow in height and exceed the boys, which advantage they maintain until about fifteen years when they are again exceeded by the boys, who continue to grow in height much longer than the girls. The development of girls is much slower after fifteen than before.

The curves of weight show the same general features except that the girls exceed in weight one year later than in height. Girls also grow in weight longer than in height.

The overlapping of the curves from eleven to fifteen years Smedley found to be due to slower growth on the part of the boys and increased growth on the part of the girls. West has found that this overlapping is less among the more favored ones. And Boas remarks that if many of retarded growth die at puberty then we would have an explanation of this overlapping of the curves. But observation so far has tended to show that while puberty is a period of great morbidity yet the mortality is low.

A number of conditions have been found which produce variations in the curve of growth. Thus the condition of the mother has a determining influence for Gassner found that the weight of the child at birth was 5.23%

TABLE I

IOWA							
BOYS				GIRLS			
HT.	M. V.	WT.	M. V.	HT.	M. V.	WT.	M. V.
1144	39	20.80	1.7	1132	36	18.87	1.8
1215	53	23.32	2.8	1188	36	21.51	2.0
1261	41	24.95	2.2	1249	41	23.13	2.9
1303	46	27.95	2.5	1303	39	26.35	2.8
1353	57	28.90	4.1	1346	52	28.17	2.9
1401	51	32.84	3.7	1383	63	31.39	4.1
1451	54	35.47	3.6	1472	57	36.15	4.6
1490	62	41.21	5.5	1503	73	42.68	7.1
1567	51	46.26	5.0	1568	53	45.36	6.7
1644	67	53.07	6.9	1608	43	50.48	5.9
1695	69	58.97	7.4	1608	36	50.63	5.4
1731	36	63.56	4.8	1638	44	54.88	4.8
1742	33	64.67	5.7	1642	39	56.92	3.9
1752	44	65.99	4.8	1640	38	57.33	5.7

CHICAGO			
BOYS		GIRLS	
HT.	WT.	HT.	WT.
1107	19.74	1097	18.87
1158	21.61	1154	20.97
1209	23.82	1205	23.01
1261	26.34	1252	25.26
1309	28.71	1301	27.80
1351	31.22	1354	30.66
1395	34.15	1413	34.37
1455	38.08	1477	38.97
1519	42.70	1536	44.22
1581	47.99	1568	48.16
1640	53.24	1583	50.65
1679	57.38	1593	52.39
1712	61.29	1594	52.92

BOSTON							
BOYS				GIRLS			
N. L. HT.	L. HT.	N. L. WT.	L. WT.	N. L. HT.	L. HT.	N. L. WT.	L. WT.
1058	1056	18.70	18.60	1059	1048	18.39	17.19
1121	1112	20.64	20.44	1121	1099	20.02	19.56
1175	1160	22.57	22.19	1163	1154	21.73	21.39
1222	1212	24.78	24.34	1218	1206	23.94	23.50
1271	1264	27.16	26.86	1275	1252	26.66	25.74
1325	1310	30.08	29.58	1313	1303	28.92	28.11
1368	1351	32.57	31.60	1364	1357	31.97	30.85
1421	1394	36.46	34.42	1427	1415	36.37	35.16
1477	1445	40.18	37.83	1491	1474	41.13	31.66
1538	1507	43.79	42.49	1532	1521	45.09	44.42
1593	1573	49.36	47.57	1555	1550	48.85	47.68
1658	1643	55.56	53.99	1562	1563	50.44	51.07
1681	1671	58.16	56.83	1573	1574	52.23	52.49
1694	1686	59.87	59.69	1582	1568	52.54	51.23

WORCESTER			
BOYS		GIRLS	
HT.	WT.	HT.	WT.
1097	19.32	1074	18.06
1127	30.87	1113	19.82
1170	22.41	1175	21.77
1223	24.31	1216	23.36
1270	27.13	1266	26.04
1340	30.16	1328	28.80
1388	32.21	1370	31.75
1429	35.74	1447	36.15
1476	39.05	1479	39.78
1543	44.54	1537	44.95
1622	50.89	1570	47.63
1658	56.06	1584	49.44
1685	60.27	1594	52.16
1700	60.42	1591	54.43
1713	64.68	1593	53.52
1739		1590	54.34
1705		1592	53.43

GR. BRITAIN			
BOYS		GIRLS	
HT.	WT	HT.	WT.
495	3.22	489	3.13
851	(10.89)	698	9.12
854	14.74	819	11.48
931	15.42	918	14.33
978	16.78	971	16.38
1042	18.14	1031	17.78
1118	20.14	1090	19.05
1168	22.68	1130	21.55
1194	24.95	1183	23.63
1261	27.40	1236	25.17
1312	30.62	1295	28.12
1359	32.66	1348	30.89
1397	34.93	1404	34.65
1441	37.65	1464	39.55
1505	41.75	1518	44.00
1578	46.72	1546	48.22
1632	53.98	1566	51.30
1680	59.42	1587	52.39
1702	62.32	1584	54.93
1708	63.50	1591	56.25
1714	65.00	1600	55.97
1717	65.86	1600	55.33
1719	67.13	1598	55.97
1714	67.13	1600	56.29
1719	67.13	1592	54.88

HT.—Height. WT.—Weight. M. V.—Mean Variation. N. L.—Non-Laboring. L.—Laboring. Weights are in Kgms. Heights given in M. M.

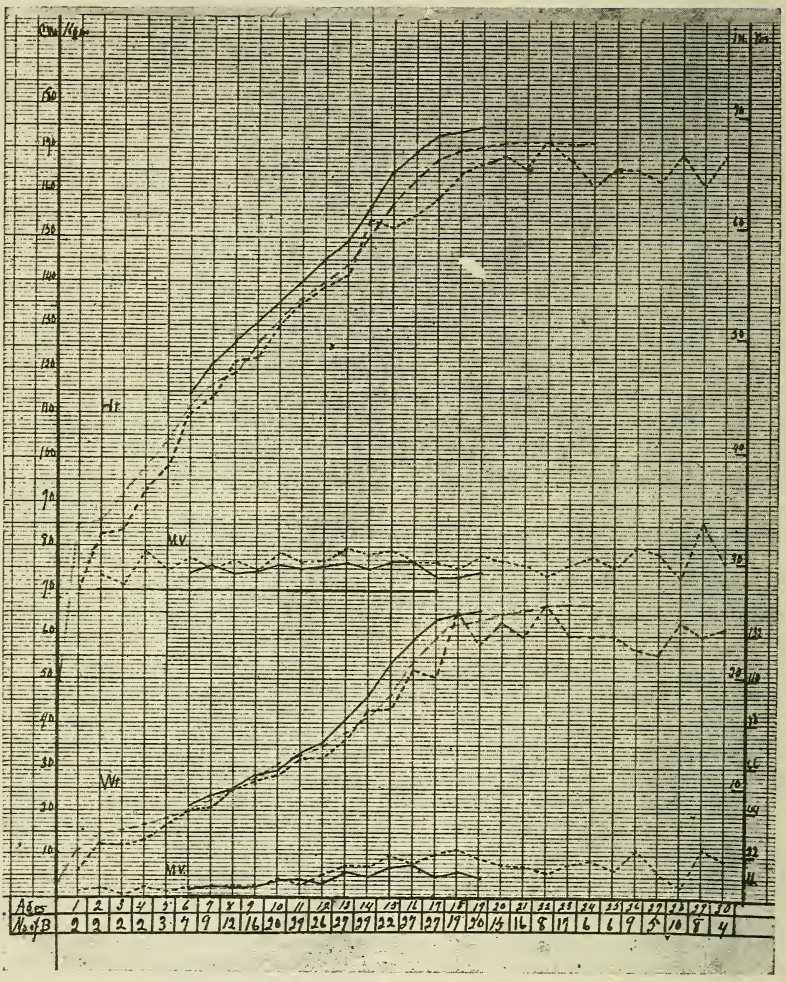

PLATE I. Height and Weight of Boys. ——Iowa School Children. - - - English School Children. - - - - Feeble-Minded Children.

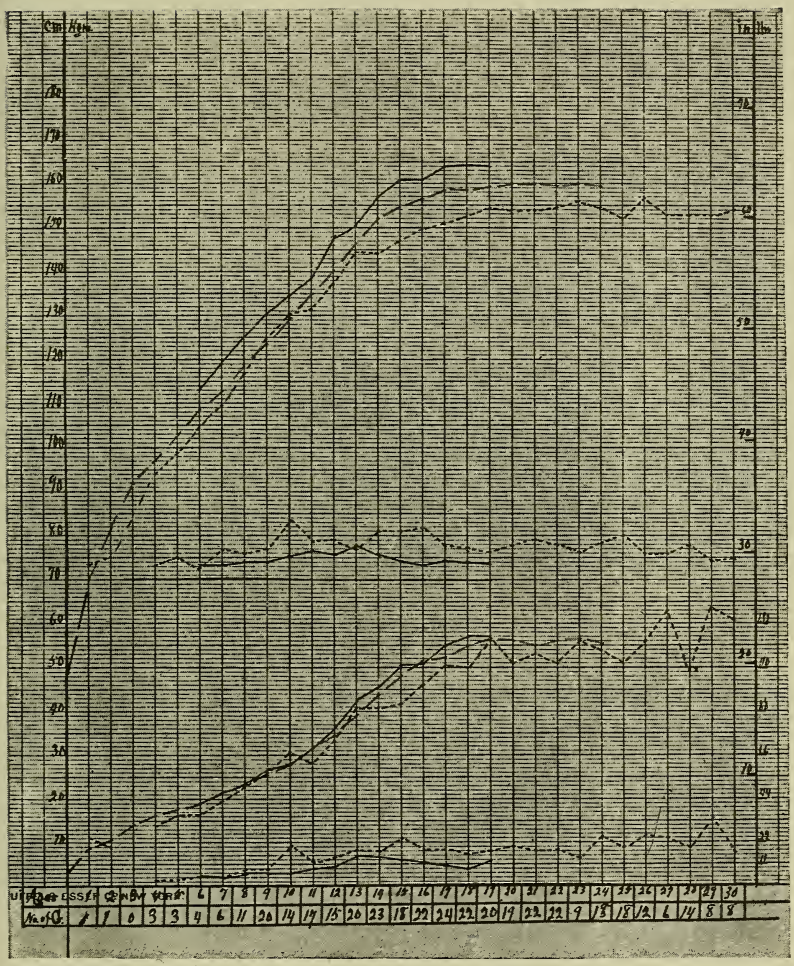

PLATE II. Height and Weight of Boys. ——Iowa School Children.
– – – English School Children. - - - - Feeble-Minded Children.

of the mother's weight,

The effect of the sociological condition is marked. MacDonald finds that the children of non-laboring parents are greater in height and weight than those of laboring parents. Galton finds that in Great Britain the poorer boys are shorter and lighter. And this has been found to be true wherever the question has been studied. Key finds that growth is more sudden in the poor and occurs two years later than with the well to do. MacDonald also finds that the pubertal superiority of the girls is one year longer among the laboring.

Maling-Hanson, in a careful and minute study of the growth of a number of deaf school children, concluded that defective food retards growth, but more in weight than in height, and when they grow in height they do not in weight and *vice versa*.

Growth in size and function are found to be in inverse ratio to each other. Hereditary disease is early shown by decreased growth in height. Boas found that the first born exceed the later born in height and that this fact is independent of nationality.

As to the growth of the mentally dull or deficient child the results in the main agree. Porter found that the dull child was lighter and the precocious child heavier than the average. But the rate of growth in all from seven to sixteen was the same and the prepubertal acceleration was the same. Beyer found also that the dull child is the small child. Smedley from his measurements of Chicago school children concludes that dull and below grade pupils are below the average in height and weight only from ten years on. Kline who made a study of truants found them smaller than the average and homologous to the savage

II.

Some three years ago the author made a study of the growth in height and weight of the children in the Minnesota School between the ages of one and twenty-five years*. The number of the children in some of the age groups being very small it was thought good to repeat the measurements to see if a larger number of children would change the essential features of the growth curve as then determined. So one hundred and eighty-nine of the children appear twice in this study and these were situated along the age scale as it appeared in 1899 as follows:

Age	Boys	Girls	Age	Boys	Girls
3	1		9	2	5
4	0	0	10	6	5
5	2	2	11	6	6
6	3	2	12	3	3
7	3	3	13	9	3
8	3	3	14	11	7

*Wylie: Investigation concerning the Weight and Height of Feeble-Minded Children. JOURNAL OF PSYCHO-ASTHENICS, December, 1899.

15	4	6	20	4	5
16	6	5	21	2	10
17	6	7	22	2	7
18	8	6	23	4	3
19	4	8	24	1	3
				92	97

The measurements of the children were taken in their ordinary school dress and are given in Table II. And the curves platted from these are shown in Plates I and II.

For the averages for normal children we have taken the figures given by Gilbert in his studies on Iowa school children since the conditions under which the measurements were made were similar in both. But since these data are only of limited range, extending from six to nineteen years, we have also drawn in the curve taken from the figures in Robert's table of the height and weights of English children. The difference between this curve and that of the feeble-minded for height is too small owing to the different conditions of the measurements.

On consulting Plates I and II one notices that the curves of growth of the feeble-minded children are more angular or not so smooth as those of normal children. This is most probably partly due to the small number of feeble-minded children upon which the observations are based, and partly to the nature of the material studied, observation of the individuals plainly indicate this.

In studying the height curve of the boys one notices that it is everywhere below the normal. During the second year the feeble-minded boys grow more rapidly than the normal boys, but this is plainly due to loss during the first year and is indicative of delayed development. This is followed by retardation during the third year. From three to six the curve gradually approximates more closely to the normal. From six to eleven the curve runs fairly parallel to the normal except during the ninth year where there is a marked retardation. From eleven on the general tendency of the curve is away from the normal. More particularly there is a sharp rise in the curve during the fourteenth year which thrusts it very close to the normal. It then falls quickly away showing a marked retardation; and gradually rises to the twentieth year, but much less rapidly than the normal. After twenty the general level of the curve is somewhat lower although there are marked irregularities. Thus it will be noticed that periods of rapid growth are followed by marked retardation, indicating a quick exhaustion of the growth impulse, which is only slowly and in part made up later on.

The general features of the curve of weight are the same as those of the height curve. During the first six years it deviates in much the same manner from the normal. It approximates somewhat more closely the normal from six to eleven years. There is a period of marked growth during the second year and periods of retardation in the third, seventh and twelfth years. The pubertal increment is noticed in the thirteenth and fourteenth years. There is marked retardation in the fifteenth and seventeenth years

TABLE II

WEIGHT							HEIGHT						
BOYS				GIRLS			BOYS				GIRLS		
AGES	NO.	W. B.	M. V.	NO. G.	W. G.	M. V.	AGES	NO.	H. B.	M. V.	NO. G.	H. G.	M. V.
1	2	6.260	1.45	1	11.340		1	1	700		1	734	
2	2	12.61	2.78	1	9.300		2	2	828	35	1	752	
3	2	12.156	.54				3	2	839	13			
4	2	13.608	2.50	3	14.153	1.270	4	2	931	86	3	939	36
5	3	16.647	1.32	3	16.238	1 50	5	3	979	44	3	992	48
6	7	20.048	2.13	4	16.601	2.22	6	7	1099	76	3	1046	26
7	9	20.184	2.45	6	19.504	1.86	7	9	1136	47	6	1095	66
8	12	24.802	2.77	11	22 634	3.90	8	12	1217	67	10	1168	61
9	16	26.399	2.68	20	25 854	4.04	9	16	1231	48	19	1248	69
10	20	28 304	4.36	14	30.799	8.94	10	18	1303	87	12	1305	135
11	29	31.705	3 13	17	28.257	5.63	11	29	1351	64	15	1315	87
12	26	31.978	5.40	15	33 475	6.35	12	24	1391	64	15	1374	91
13	27	36.106	7.44	20	40 687	8 30	13	27	1414	95	19	1445	70
14	29	43.001	7.20	23	40.778	8.17	14	28	1539	82	20	1442	109
15	22	43.636	9.71	18	41.140	11.02	15	20	1522	91	16	1471	110
16	27	52.118	8.35	22	45.859	8.53	16	27	1550	64	21	1497	113
17	27	50.439	9.84	24	50.394	8.48	17	27	1590	65	24	1506	81
18	19	65.499	10.93	22	50.258	7 26	18	18	1644	52	20	1525	71
19	20	57.741	8.94	20	56.790	8.17	19	20	1665	79	20	1545	64
20	15	62.641	6.71	19	51.437	9 30	20	15	1684	69	18	1538	78
21	16	59.693	7.39	22	53.161	8.26	21	16	1657	60	22	1537	91
22	8	66.860	6.17	22	51.165	8.26	22	8	1718	35	22	1544	79
23	17	59.556	7.76	9	56.064	6.31	23	16	1681	58	9	1558	61
24	6	59.920	8.62	18	54.295	11.20	24	6	1613	80	18	1546	84
25	6	60.146	6.35	18	51.618	8.89	25	6	1657	56	18	1522	102
26	9	56.744	10.70	12	56.245	11.34	26	9	1653	102	12	1566	59
27	5	56.290	6.12	6	63.095	11.16	27	5	1630	87	6	1528	61
28	10	62.823	2.86	14	48.635	8.85	28	10	1690	31	14	1528	79
29	8	60.146	11.16	8	64.229	15 38	29	8	1621	155	8	1528	45
30	4	61.326	9.17	8	61.054	7 39	30	4	1691	66	8	1541	48

NO.—Number of Boys.

W. B.—Weight of Boys.

H. B.—Height of Boys.

Weights are in Kgms.

Heights given in M. M.

NO. G.—Number of Girls.

W. G.—Weight of Girls.

M. V.—Mean Variation.

H. G.—Height of Girls.

followed by rapid growth in the sixteenth and eighteenth years. And the general tendency of the curve after twenty is away from the normal.

In comparing the two curves of height and weight from fourteen on we find in these children confirmation of the fact already noted among normal children that increase in weight succeeds that in height.

In the height curve for girls we have the same general features as that for boys except that it continues to approach the normal until ten years, after which there is a more marked delay. The pubertal increment is here noted in the twelfth and thirteenth years with subsequent delay in the fourteenth. The curve then slowly rises to nineteen years and continues on the same general level to thirty years.

The weight curve follows in the main that of height. It, however, crosses the normal at ten years, but immediately recrosses and remains sub-normal during the rest of its course. The pubertal increment is noticed during the twelfth and thirteenth years. There are marked depressions during the eleventh, fourteenth, fifteenth and eighteenth years. The general level is somewhat lower after twenty with a strong tendency to rise in the late twenties. Growth in weight follows that in height the same as with the boys.

This study and those made upon normal children are based upon averages. The average weight and height for the children at the various ages have been calculated. While as yet the definition of normal has not been clearly calculated the only one we are now able to give is that the normal is the average. Other studies also point in this direction. Beyer finds that the results of the battle of life point to the average of the race as the goal to strive for. Large men are sick longer and die earlier, and middle sized men are found to stand more in the army.

However, the simple average is often unsatisfactory. It applies very well in many cases but when applied to animate things it leaves something to be desired. Adaptability and consequent variability are the chief characteristics of the animate. So when dealing with things of the animate world we need in addition to the average some indication of the average variability in order to have something truly accurate and full of meaning. And this is true in a larger sense when we are dealing with abnormal things, for here the chief characteristic is the wide variation.

The average gives the value of a series, but gives no indication of the uniformity of the series from which it is derived. So in order to do this it has become the custom to calculate also the average variation from the determined average or the mean variation. Thus the greater the mean variation the rougher the series from which the average is deduced. As applied to series taken from animate things it would give an index of the average or normal variation.

In most of the studies made in height and weight the authors have been contented to calculate the simple average. Gilbert however has computed the average variation. He finds it largest at the times of fastest growth. It increases to puberty and decreases afterward. Before puberty it is about the same in boys and girls. It is greatest for girls from eleven to fourteen years, at all other times the boys exceed the girls.

The curves of mean variation are shown in Plates I and II in comparison

with those given by Gilbert. For height the curve of mean variation exceeds that of normal children except in two or three instances. In general the mean variation is greatest at times of fastest growth, but there are many marked exceptions to the rule. The ten and fifteen year points are noticeably high. The curve is markedly high in the post-pubertal epoch, in fact the greatest variation appears here.

The curve of mean variation for weight shows the same general features as that of height except that it is nearer normal up to ten years. High points are noticed at ten and fifteen years. The post-pubertal epoch is markedly high. The points of delay in the growth curve are as a rule points of high variation.

In Plates III and IV we have drawn the maximum and minimum curves of height and weight determined by adding to and subtracting from the average for each age the mean variation for that age. The normal curves are determined by treating the statistics of Gilbert in the same way. These plates show some very interesting results. In general the average for the feeble-minded follows fairly closely the minimum of the normal children, and the maximum of the feeble-minded children the average of the normal children. After puberty there is a marked falling off in the curves of the feeble-minded children so that their maximum approaches more closely the minimum of the normal children. The special features noticed when treating of the average curves are also accentuated in these drawings. The ten year point is especially noticeable, also the pubertal increase and the subsequent delay.

CONCLUSIONS

I. The feeble-minded are subnormal in height and weight. The average of the feeble-minded approximates the minimum of the normal and the maximum of the feeble-minded the average of the normal.

II. The feeble-minded child most closely approximates the normal in height and weight at ten years. This is due to delay on the part of the normal child and increased growth on the part of the feeble-minded following a delayed development in the earlier years.

III. Development is delayed among the feeble-minded. This is especially noticed in the early years and in later adolescence. Puberty is delayed which in part explains the depressions in the curves at fifteen years.

IV. Growth of the feeble-minded is not continuous. Rapid growth is followed by delay. This indicates weakness of growing power which is quickly exhausted and is only made up slowly, but only in part, hence:

V. Growth power is deficient among the feeble-minded. This is noticed especially at fifteen years and in the post-pubertal epoch.

VI. High mean variation is characteristic of the feeble-minded, indicating weak growing power and delayed development.

BIBLIOGRAPHY

Baxter, J. H.: Statistics, Medical and Anthropological. Wash. 1875.

Beyer, H. G.: The Growth of the U. S. Naval Cadets. Proc. U. S. Naval Institute. Vol.

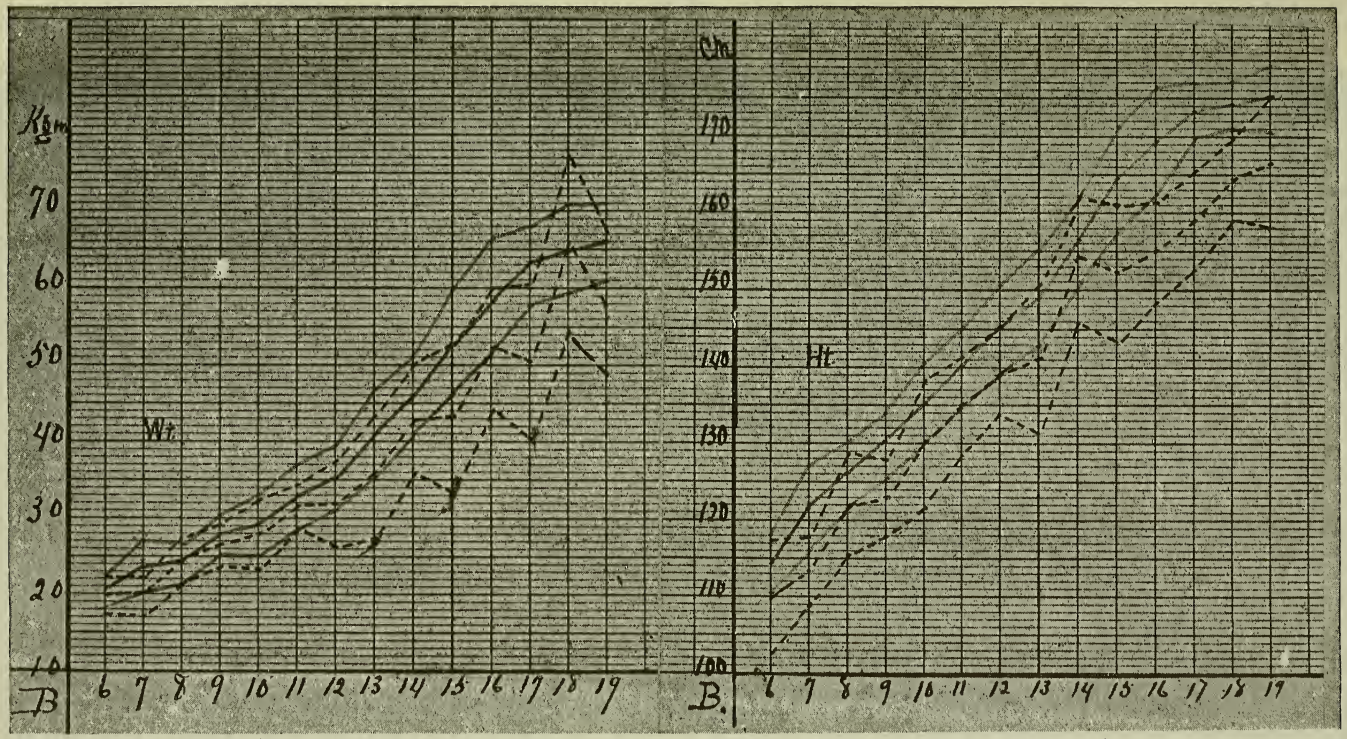

PLATE III. Maximum and Minimum Weights and Heights of Boys. ——Iowa School Children. - - - - Feeble-Minded Children.

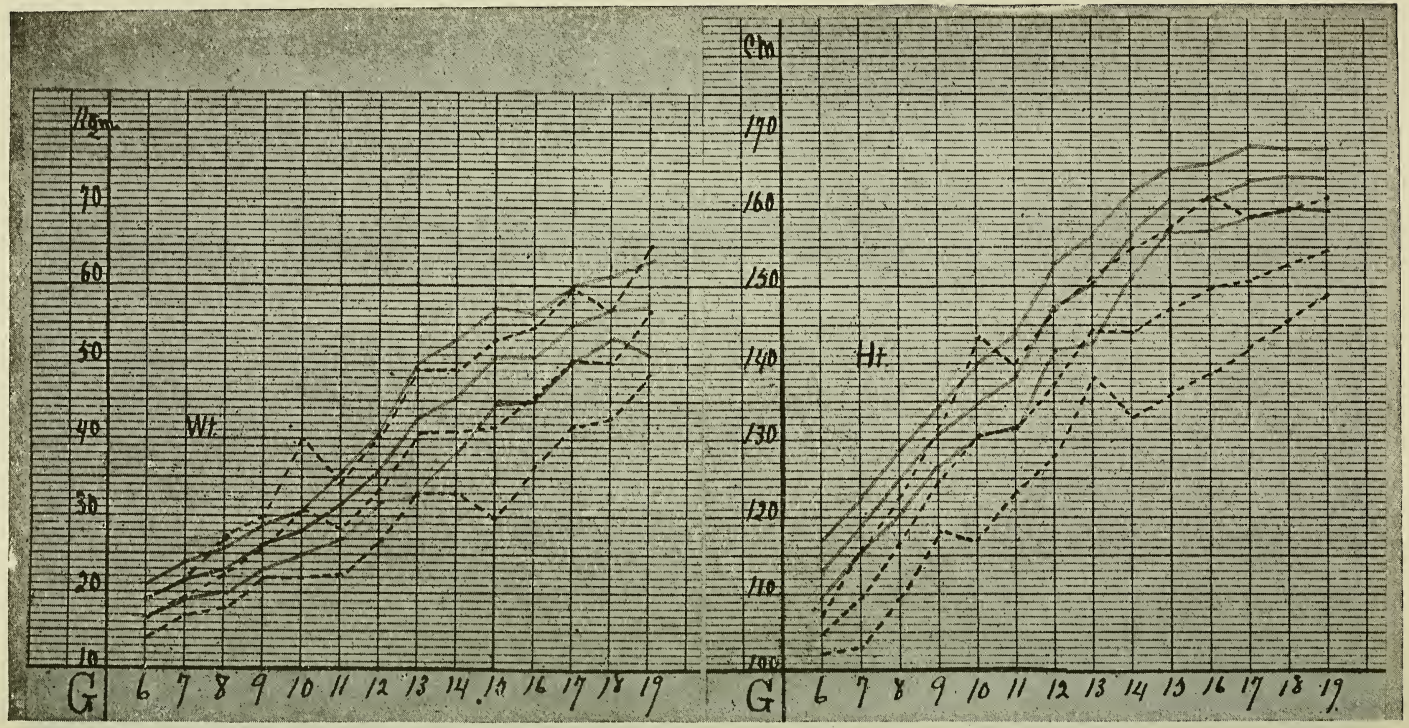

PLATE IV. Maximum and Minimum Weights and Heights of Girls. ——Iowa School Children. - - - - Feeble-Minded Children.

XXI. No. 2.

Boas, F.: The Growth of Toronto Children. Rept. Com. of Ed. 1896-97.

Bowditch: The Growth of Children. Rept. Mass. Board of Health. 1879.

Burke: Growth of Children in Height and Weight. Amer. Jour. of Psych. 1897-98.

Camerer, W.: Untersuch. Über Massenwachstum u. Længenwachstum der Kinder. Jahrb. f. Kinderh. 1893. p. 249.

Carlier, G.: Recerch. Anthropomet. sur la Croissance Mem. Soc. d'Anthrop. de Paris., 1889-93. 2s. IV. p. 265.

Donaldson: Growth of the Brain. N. Y. 1900.

Galton: Range in Height of Males at each Year and in Several Classes. Rept. Brit. Assn. Adv. Sci. 1881.

Gilbert: Researches upon School Children and upon College Students. U. of Iowa Studies in Psych. Vol. I. 1897.

Key: School Life in Relation to Growth and Health. Stockholm. 1890.

Kline: Truancy as Related to the Migratory Instinct. Ped. Sem. Jan. 1898.

Maling-Hanson: Perioden in Gewicht der Kinder u. in der Sonnenwærme. Copenhagen. 1886.

MacDonald: Exper. Study of Children. Rept. Com. of Ed. 1897-98.

Smedley: Report. Dep't of Child-Study. Rept. Board of Education of Chicago. 1899-00

Tarbell: On the Height and Weight and Relative Rate of Growth of Normal and Feeble-Minded Children. Rept. of Ass'n of Med. Offs. of Amer. Inst. for Idiotic and Feeble-Minded Persons. 1882. p. 188.

DISCUSSION

Dr. Murdoch: We are to be congratulated on this able paper which Dr. Wylie has taken so much pains in preparing and I will invite Dr. Grosseman to open the discussion.

Dr. Grosseman: This is a valuable study of the abnormal child in comparison with the normal child. I have under my observation several cases which seem to contradict some of the statements. I have noticed two tendencies in the matter of growth, one in the direction of smaller growth and the other tendency toward giantism. The smaller growth is usually found in children of a very nervous tendency, choreatic, with very slow growth up to fourteen. Then there are children with a tendency for giantism. I remember one boy who came at fifteen who within a year grew six inches in height and gained twenty-five pounds in weight. At that time he became incorrigible in my institution, developed thieving propensities and sexual difficulties so that he could not be handled by me. He showed a peculiar condition of mentality and was an exceedingly dull fellow generally. Another case was that of a girl not particularly large for her age. She has been with me nearly five months. During three of those five she did not grow very much, but she has gained ten and one-eighth pounds. She is slow and very nervous. The child is as yet a problem to me. These two tendencies have come under my observation,—retarded growth and giantism.

Dr. Murdoch: We had a boy who stood still in growth for three years,

but this year he has shot up and I believe he has grown a foot.

Mr. Johnstone: I was taught that at the age of growth children's mentality was less than when the physical body was quiescent, but I do not believe it. I find that in many cases when there is the most physical growth, mentality is brightened considerably.

Dr. Murdoch: That has been my observation, that the physical and mental growth were concomitant.

Mr. Johnstone: This paper is a valuable contribution, but I do not think the writer has had cases enough to form an average. Wouldn't it be possible for our institutions to furnish him data to carry on these studies? He is trying to establish the normal by establishing the abnormal. I think Dr. Rogers may make some sort of an arrangement for us. In our institution there would be some one glad to get the data to turn over to him. I think we should do it. I move that we ask Dr. Rogers to confer with Dr. Wylie and let us know what data he would like to have us send. The motion was seconded and adopted.

INDUSTRIAL TRAINING—ITS PLACE IN SCHOOLS FOR THE FEEBLE-MINDED

MR. C. EMERSON NASH, VINELAND, N. J.

THE first thought we give a child when it enters our school, is: What can this child be taught to do that will be of the most use to himself and to the institution when he becomes a man in years? Is he strong? Does he need physical development more than mental? What advantages has he had, and what will he be able to do five, ten, or even twenty years from now?

There are a great many occupations that come under the head of industrial training, but it is the more ordinary branches of which I wish to speak. Farming comes first, and why shouldn't it? It is the most natural work in the world, and seems closest to the hearts of our children. It is not strange that feeble-minded children have a special liking for it. Under the head of farming come horticulture, dairying, poultry raising, teaming, etc., and I can safely say that four-fifths succeed along this line in comparison with the number that undertake other trades, the natural trend of this class of defectives being in the direction of the farm. But few choose to be painters or carpenters, and still fewer have any desire to make shoes, or do housework. With the girls housework, and particularly the care of their small and helpless companions, holds the same place that farming does with the boys. However, I am inclined to believe that farm, or garden work, has its attraction for the girls almost equal to that of the boys. Girls should have their little gardens and be allowed to do these things for recreation if nothing else. We say a man or woman should have a fairly good education to do any of

these well, or at least should have good common-sense. There is no doubt that common-sense goes much farther than education. However, that does not alter the fact that we must educate along the line of work we expect the child to perform in order to become self-supporting in later years. Understand I do not mean self-directing. The sad side of it all is that feeble-minded children have neither common sense nor education. These qualities being lacking, we have to study or learn the child, and then work along the lines of least resistance, and almost invariably these lines are in the direction of one of the above named trades or industries. I think I am safe in making the statement that the salvation of all institutions for this class of children hinges *alone* on industrial training. Certainly their often disputed right to exist will best be shown by the results obtained through it. *All* education must point to one end,—there is absolutely no other. The possible exception may prove the rule. As a rule, farmers' and artisans' boys do not get the years of schooling that the lawyers', doctors', or ministers' children do, so we say we will teach our children such and such a trade, and give them as good an education as is reasonable to expect, but the end for which we are training must never be lost sight of.

The carpenter or dressmaker does not have to know Latin or Greek in order to make a dress or build a fence, but they have to know the use of a tape measure or a square; however, we have boys today who are practically doing a man's work and yet cannnot write their own names. It is not the ordinary person who learns a profession, but the extraordinary person. About seventy-five per cent of the people living to-day are the people who do manual labor. We haven't a child in our institution who would become self-supporting in any other way but as a result of manual training, and no child has ever gone out from here that could begin to make his living in any other way. We cannot expect our children to learn a dozen different occupations and be proficient in each. In nearly all cases we must confine the child to one special trade, and quite often to one special branch of that trade. The boy who handles the pick and spade may become a machine and do the work of a man in just that line. If we have plenty of such work for that boy, then he is saving us just so much of a man's time. He then becomes of use to us and to himself. It may be as mechanical as a clock; nevertheless, the results are there. Without sufficient work of this character at hand, we must make for him an industrial opportunity suitable to his capacity.

If we should cut out industrial training, alas, there would be nothing substantial left. The Kindergarten, manual training, fancy needle-work, etc., amount to nothing in themselves. We might keep our children at that a life-time, but what advantage would there be in the end? We must make the Kindergarten train for the carpenter, painter, farmer, blacksmith, shoemaker, etc. Why, there is no end to the training in even the simple blocks—houses, barns, fences, churches, and a hundred and one other things, are built. Thus the child is being trained for the carpenter. The next step above the Kindergarten is the manual training, then follows the industry, and he is made an artisan.

From manual training to industrial usefulness is the short road along which one of our boys coming under my close observation has traveled, and

the results are surprising.

Three years ago Willie could do absolutely nothing that was of use—could not even dress and undress himself properly. When asked to do an errand of the simplest kind the only response was an idiotic smile, and a peculiar teetering from one foot to the other. We tried him in nearly all departments, but with no satisfactory results. Finally, as a last resort, he was sent to the manual training shop, not even knowing what damage he might do with the sharp tools. We had touched the right spring, and from that day he has steadily improved. To-day he does beautiful wood-carving, joining and pyrography work; and in connection with that he has learned to make hammocks, even making the wooden needles necessary in hammock-making. This boy can neither talk, read nor write, and is of an extremely nervous temperament. An active occupation is necessary for this child. It would be a positive punishment to keep him in the school-room, or to compel him to do anything where he was not free to use his whole being. Confine him to such work for two months. and he would fall back into the same old rut of three years ago. His knowledge of manual training is sufficient for the present at least, and another year he will go with the carpenter, where his work will be of even more value than it is now.

The painter gets his start in the Kindergarten first, simply by learning the colors. The blacksmith by the rings, games, etc. And so it can be followed all the way down the line. Needle-work is preparing the way for the dressmaker and tailor. We must be very careful at all times to uphold and honor industrial work, no matter how menial it may seem. I respect the man who dresses for the work he does (if he does it well), whether he be a farmer, hod-carrier or what not, as much as I do the professional man. Implant the idea that the privilege of working with our hands is as great as that of working with our heads, and the fact of succeeding in doing hand-work well is as great as the ability to teach or practice a profession. Our work must be that which is going to be the greatest good to the greatest number, and industrial training is that work.

One thing we must never lose sight of in our training, and that is "character building." The most successful man or woman is a failure without it. This I believe is the key-note of all true education. We are the perfect example in the children's eyes, and they imitate us in nearly all things. If we would have them be men and women, then let us be manly and womanly in our dealings with them. To teach a subject well, we must be the masters of it.

The good the pupil derives from industrial training depends entirely upon the teacher. If the work is not as well done as it should be, then the child must not be made to believe it is perfect, for there is nothing so discouraging as to let a child do a lot of work thinking it is done well, and then have some one condemn it. We cannot learn everything in a day, and especially is it so with our children. It takes months and often years to learn the simplest thing. The confidence in succeeding in whatever is undertaken is always sure—we must not let the germ of success die. Happiness does not depend upon knowledge; however, the more knowledge a child has of his work the more he enjoys it.

The position of the man (out in the world) who can simply work with his hands is steadily growing worse instead of better. Foreigners of the lowest type are brought in and make up most of that class. They care for nothing but the money they earn. If our boys were turned out into the world, this is the class they would associate with. We must make our institution life so interesting for them that they will not have any desire to try their experience in the world. Our children can *know something*, *do something* and *be something* here, but out in the cold world it is quite the reverse.

DISCUSSION

Dr. Wilmarth: The paper is to be commended for its good sense. I was interested in the warning about depending on children to exercise their brains. It is amusing to see our new assistants try to set our children to thinking. We had one man who found out that he could get such good work done by the children under instruction that he thought they could be trusted to do their own thinking, so he tried to have a boy make a Morris chair by himself and he spoiled three before the man fouud out that these children cannot do their own thinking. Every new man has to learn for himself that he cannot set these children to thinking on their own account. The importance given in this paper to farming work is well put. In our state farming is predominant. The majority of the children take to it better than to almost any other work and a larger proportion do it better. We use them in clearing wild land. Dr. Fernald in Massachusetts has had a great deal of that kind of work done by his boys. We have done it on a smaller scale. We have ten acres of wheat this year which was only scrub oak last year.

Mr. Johnstone: The girls often prefer caring for other children to anything else except garden work. Working in the garden is made a privilege with us.

THE IMPORTANCE OF WELL-MADE AND ACCURATELY REPORTED AUTOPSIES IN THE DETERMINATION OF THE ETIOLOGY OF WEAK-MINDEDNESS AND IDIOCY.

W. N. BULLARD, BOSTON, MASS.

THERE is probably no form of non-bacterial, morbid affection, or disease in which post-mortem examinations, carefully conducted, are of more importance or will more probably lead us to practical results than in the case of feeble-mindedness or idiocy; and yet there is no class of patients in which the relative proportion of autopsies to the number of deaths is so small, and this, too, in spite of the fact that so many patients of this kind are under

control in institutions. The reason for this is not at first sight wholly evident. I believe, however, that several causes have contributed to this result.

In the first place, it has been partly the fault of the superintendents of the institutions for the feeble-minded—in part perhaps lack of individual interest or training—but more the fault of our system of government in these institutions, by which the executive work and the care and treatment of the patients necessarily occupied the whole time and strength of the officers in charge. In many, I may say in most of our institutions of this character, the responsibility and the stress of the work absolutely required has been such that nothing which did not promise immediate results could be attended to and even the grosser scientific work must be postponed for matters of more immediate importance.

II. Another cause of this, or really another result of the conditions I have alluded to, has been the comparative isolation of the officers of the institutions for the feeble-minded from the profession at large. In the same way as in the case of the superintendents of institutions for the insane, the former have been considered by the mass to be specialists so far removed from the general practice of medicine as scarcely to share in its general interests. The profession as a whole believed that the care and treatment of the feeble-minded and the idiots was a form of work totally outside their ordinary knowledge and practice. The view almost universally entertained that little or nothing could be done for this class beyond pure custodial care added to the lack of interest in regard to them on the part of the medical profession and the readiness with which they thrust the burden of their care on the specialists. In this condition of things, the medical profession as a whole took no active interest in the consideration of cases of this character, but named them hopeless at once, and put aside all responsibility for them as quickly as possible. The superintendents had no aid or encouragement from the profession in seeking information in ways with which they were unfamiliar and for which many of them had no special facilities.

III. Discouragement—rather than encouragement—was received even from those specialists who should most have aided in this work. Few pathologists in this country have been good neuro-pathologists. The field of pathology has been so wide and there were so many easier and more attractive lines of work that this special division of pathology has been neglected. Much of the work on the nervous system demands special training and immense expenditure of time and patience on the part of the pathologists, and for this reason many were inclined to undertake with unwillingness and look with disfavor on any investigations in this direction, even though comparatively simple.

IV. There has been in relation to these patients—and possibly to a special extent—the common difficulties in regard to obtaining the proper permissions from the relatives. It is not so very long ago that superintendents of general hospitals were very averse to the trouble entailed by the performance of autopsies in their institutions, and the risk which they ran of legal prosecution in case of the carelessness of a subordinate, or the public disfavor which they might perchance incur.

The special value of autopsies in the feeble-minded and in idiots to us at

the present moment lies in the information which they can furnish us in relation to the etiology of these affections. The finer structural conditions of the central nervous system in these cases may be studied by those neuropathologists who are interested and desire to devote themselves to very delicate, tedious, detailed and special research. For us, however, the coarser, microscopic examination is sufficient to determine the points of special interest. It is not hard to mention some of the facts which the pathologist could reasonably be expected to determine without too minute a study and in regard to which we desperately need information. In the first place, we need to know what the general gross lesions in these cases are, and the frequency of the various pathologic conditions. If we have good clinical histories, it may be possible for us to so far differentiate certain of these affections that we can actually diagnosticate them during life. Work of this sort has already been done to a certain extent in France and to Dr Bournèville we owe a large part of what is now known on this subject. None the less, an immense amount remains to be accomplished, the field has only just been entered. Why should we lag behind? How many clinicians anywhere can clinically distinguish a case of tuberous sclerosis of the brain from a case of porencephalus? Yet this is, comparatively speaking, a simple problem.

The objection, which has really existed in the minds of the moderately advanced physicians, to the efforts necessary to the acquirement of such knowledge as this has been really consciously or subconsciously the utilitarian one "of what use is it to us when we do know? Both conditions are absolutely incurable. Why waste our time?" There are two things to be said in reply. In the first place we open here the whole immense question of purely scientific research and its value and importance. That it is valuable and important is now admitted by the mass of educated and cultivated men. The arguments and reasons cannot here be considered. Secondly, we answer that even from the strictest utilitarian standpoint this information is likely to be of use. If we can differentiate the physical conditions existing in any group of cases we have advanced one step towards the determination of the etiology of that class and thus to its prevention.

The questions which seem to me to impose themselves most strongly upon us at the present time, and on the answer to which so much depends, may be stated as follows: What are the pathological conditions existing in the central nervous system of the congenital idiot or feeble-minded child? What are the pathological causes thereof? and at what *stages* in the *development* of the nervous system have they begun to act?

The meaning of the first question is evident. By the pathological causes of the morbid conditions of the central nervous system, I wish to denote the the proximate cause of the special condition found. For example, porencephalus or congenital defect is conceivably due to several different causes. It might be due to non-development from an amniotic adhesion or to the non-development of the nutritive blood vessels or to some obstruction of the blood supply after development of the vessels either through thrombus or embolus or by reason of some other pathologic process. Consideration of the various questions thus presented to us leads us back step by step towards the original or primary cause.

The determination of the age at which the antenatal lesion occurred I believe to be at present the most important object of investigation. Until this question is answered our etiology must remain in many respects obscure. When we have obtained a reply, an immense step in advance will have been taken. If the views set forth by Ballantyne are admitted, and so far as I am aware no important authorities have contested them, we ought to be able to obtain a good general idea of the period at which the lesion occurred in any congenital case. The antenatal lesions may be fairly divided into those occurring previous to, or during, the development of some tissue or portion of the central nervous system or after this has been developed. The pathologist should be able to determine this in any given case without too minute or exhausting an examination.

If once it can be known at what period our antenatal lesions occur, and what proportion of the lesions occurring before delivery are antenatal and what intranatal, we shall have made an immense advance in most valuable knowledge and towards our ultimate goal,—the *prevention of idiocy*.

I would, therefore, urge each member of this Association to make all rightful endeavors to obtain autopsies and to have them made by careful and reliable pathologists who are able and willing to make such microscopic examination of the affected portions as will enable them to determine not only the gross character of the lesion, but the period of its onset and, when possible, its approximate cause. If this can be accomplished, I would then urge that each case be carefully reported and published.

If only one case a year could be reported from each institution, the gain to the feeble-minded would be exceeding great.

DISCUSSION

Dr. Wilmarth: I was much interested in the paper and the facts stated. There are preliminary steps to doing this work as it requires a man of considerable training to do it well, and the financial inducements that we can offer are not enough to secure such men. Few institutions could ever offer a sufficient salary to enable a man to devote his entire time to that to the neglect of other things. That it should be done is certain. We cannot treat any condition well and scientifically unless we know the causes that underlie it. The financial difficulty is merely a shadow. There is not a state but can afford a competent pathologist. The value of this work Dr. Bullard has set forth. The only way to have it done is to do it. There has been a lot of little work done by different institutions, but it is incomplete. I hope the day will come when each superintendent will take it up and will have more time and means for it. The proper place to do it is in the institution and the proper person to do it is an officer of the institution.

Dr. Rogers: The last statement of Dr. Wilmarth will conflict with what I was going to suggest. I have been for some time wondering whether it would be possible to have the institutions connected with this Association, unite to secure the services of the Carnegie Institute in the line of pathological work. It requires a very thoroughtly trained scientific man to do this work.

Good pathologists are very scarce and it is probably practically impossible for us to secure for all of our institutions men trained for this kind of work. I have a sort of dream that there can be a pathological institute organized with sufficiently well trained men, which will collect from the institutions the material required, and work it up. The men in the institutions could remove and preserve the material for further examination. If a farmer wishes to have the soil of his farm analyzed and its constituents recorded, all he has to do to get an accurate report is to send specimens of the soil to the Department of Agriculture at Washington. If he is manufacturing a food product and wishes to know the contents of other food products he simply sends to Washington and receives an accurate report, because it is possible for the government of the United States to have the very best men in the whole country to do that kind of work. Would it not be possible to start some movement that would give us a properly trained man for centralized pathological work for the country? The Carnegie Institute performs similar functions in other directions.

Dr. Wilmarth: Half of the work must be done at the institution, at the time. Preserved material would hardly be the best subject for study, but possibly something might be done.

Dr. Rogers: If it were possible to organize a central pathological bureau we would have a source of information which would give intelligent directions as to how material should be prepared. At the institutions we could make the examinations that must be made at the time.

Dr. Murdoch: There is one thing we can do. In getting our assistants we can, as far as possible, get young men who are trained in pathology and that line of work. That perhaps is as far as we can go at the present time.

Dr. Bullard: The difficulties in regard to the examination of specimens are real, but there are two ways in which they can be examined. Of course, gross patholgy can be determined with comparative ease in many ways, but it is more important for us to obtain a more exact result, and there are very few capable of making it. I have been considering this question for some time and Professor Wm. T. Councilman, of Harvard Medical School, who has recently discovered the germs of small-pox has declared himself willing to receive and examine any specimens which the gentlemen are willing to send. The accommodations are not as large as we should wish, but they have received considerable money lately and hope for larger accommodations before long. Professor Councilman will be glad to have clinical reports sent at the same time. I think we should find that while a good deal can be obtained from immediate investigation of fresh specimens, that much more could be obtained from specimens properly preserved. Those preserved in formalin can be so well kept as to be valuable for purposes of investigation. If we can arrange for a pathological institute it would be a superb scheme. In the meanwhile I think that Harvard Medical School will do it if the superintendents will furnish the material.

Dr. Murdoch: We should all endeavor to take advantage of this help which Harvard offers.

THE ETIOLOGY OF MENTAL DEFICIENCY

HUBERT RICHARDSON, M. D., DEMONSTRATOR OF PHYSIOLOGICAL CHEMISTRY

AT THE UNIVERSITY OF MARYLAND

CONGENITAL mental deficiency can only be the result of ante-natal disease of the fœtus and presumably can be caused either by a disease of the germ, of the ovum, of the embryo, of the fœtal environment in utero, of the mother during pregnancy, or of traumatism either in utero or during labor.

It is evident that with a normal father, a normal mother, with a normal environment in utero and a normal labor the child will be normal, as by the law of nature only normal conditions are inherited and abnormalities are not inherited, but are the result of pathological conditions. It is unnecessary here to go into the still debated question as to whether acquired characteristics are inherited or not, the concensus of opinion today, at least among the younger evolutionists, is that they are not, and that any abnormality which is inherited must be due to a morphological change.

The study of ante-natal diseases has been neglected in the past, and it is only in the last few years that their importance has been appreciated, the medical man having always sheltered his ignorance by saying that the condition was due to heredity; and as in nearly all families some cases of either epilepsy, insanity, neurasthenia, etc., can be found, the doctor pointed to them in triumph as the cause of the unfortunate child's abnormality. Slowly, very slowly, however, this idea of heredity as the cause of infantile defects is being supplanted by the doctrine of parental disease as the factor.

Ante-natal life can be divided into the following periods:—

The germinal period { Ovular life and sperminal life;
Ovum maturation, spermatogenesis;

Ante-conceptional;
Post-conceptional;
Embryonic period (organogenesis);
Neofœtal period;
Fœtal period (growth);
Neonatal period (birth and adaptation to extrauterine life).

In the germinal period including the ovular life and ovum maturation, spermal life and spermatogenesis it is possible that a diseased ovum or spermatozoa may be the factor in producing a pathological condition. The mother may have been perfectly healthy at the time of conception, but she may at some former period have had some disease which affected ovulation, and from which she may not have completely recovered, or one ovum may be diseased or defective in its development and be the one impregnated. Concerning sperminal life and spermatogenesis, the father is alone concerned and after coitus his power for good or for evil to the child is at an end; therefore at this point the possible factors which may affect the child will be con-

sidered.

Whether syphilis is communicated direct from the father to the child without the intervention of the mother acquiring the disease, is still a matter of dispute. The majority of syphilitic children never arrive at post-natal life and those who survive are often mentally normal. But syphilis has the faculty of simulating the symptoms of nearly every disease, and it would therefore be unsafe to say that a germ containing the syphilitic toxin was not capable of producing pathological conditions in the fœtus; as syphilis is very largely an arterial disease it may be that it is the factor in producing anangioplasia, which will be referred to later. There seems to be a concensus of opinion, especially among the laity, that if the father is under the influence of liquor at the time of coitus, the child is apt to be mentally deficient or physically deformed. So old is this belief that the deformed Vulcan was the result of Jupiter's drunkenness. Out of two thousand five hundred and fifty-four children received into Bicêtre and Fondation Vallèe, two hundred and thirty-five were certainly conceived during the drunkenness of the father, and nine hundred and thirty-three had drunken fathers; eighty had drunken mothers and forty had both parents drunken. Still it must be admitted that a very large proportion of children conceived during the drunkenness of the parents are not feeble-minded or deformed. As yet there is no chemical or microscopic evidence of the affect of alcoholism on the spermatozoa or on the ovum.

Nœggrath estimates that eighty per cent of all men in large cities have gonorrhea. Benzler in his investigations followed the history of three thousand German soldiers who had gonorrhea during their military service. In four hundred and seventy-four of these cases who suffered with simple gonorrhea and married, ten per cent were sterile up to three years; of one hundred and eleven who had had epididymitis of one side twenty-three and four tenths per cent were sterile; of twenty-four who had double epididymitis forty-one and seven tenths per cent were sterile and fifty-two and five tenths per cent had only one child. As thirty-three per cent of all cases of gonorrhea have posterior urethritis and thirty per cent epididymitis is evident that this disease must play a much greater role in fœtal life than is generally supposed. The infection of the mother by the father from an old latent clap is no uncommon occurrence, in fact, if gonorrheal infection were eliminated the gynecologist would have to go out of business.

Tuberculosis of the father can only affect the offspring by the weakening effect of the disease upon the spermatozoa or its containing the toxin, it being inconceivable that the spermatozoa should carry the b. tuberculosis or the hypothetical bacillus of syphilis and yet be able to fertilize the ovum. In the same manner any disease which affects prejudicially the metabolism of the paternal system or produces a toxin must affect the spermatozoa to a greater or less extent and through it the fœtus.

During the ante-conceptional and post-conceptional period the sperma and ovum may become affected by the environment due to the presence of infection in the utero-vaginal tract.

Embryonic life is the period of organogenesis and is usually considered as being the first six weeks of intrauterine life, during which period the

organs develop in distinction to fœtal life, when growth is the principal form of development. It is probable that most of the deformities and monstrosities are the result of pathological embryonic conditions and originate during this period.

The fœtal period is the one upon which the attention is usually directed and it is in this period that we expect to find the prenatal influence of maternal pathological conditions most clearly defined.

It is a well known fact that if the mother becomes infected with any acute disease the fœtus is also often, and probably always, affected, and as a rule there is premature delivery or death of the fœtus. Foetal variola, measles, scarlatina, erysipelas, parotitis, influenza and pertussis, have all been observed, as well as yellow fever, cholera, varicella and typhoid. It is evident that if the foetus becomes infected with any of these diseases grave lesions may occur, not necessarily the same as those occurring in these diseases during post-natal life, as the environment and physiological processes of the foetus are very different to those of post-natal life.

Owing to the conditions of the foetal circulation the first organ to be affected by the disease of the mother will be the liver, and next the right side of the heart, and it is precisely in these organs that we find congenital defects. Tricuspid and pulmonary-valvular insufficiency being nearly always of congenital origin. Further, any of the glands, the thyroid, the suprarenal, the thymus, etc., may become the seat of infection and inflammatory processes which will permanently arrest their development and functionation.

Maternal tuberculosis is occasionally the means of direct infection of the foetus, but only about twenty cases are on record where the bacillus was found in the foetus. There are, however, a number of foetal lesions which may be called non-tubercular manifestations of maternal tuberculosis, consisting of various malformations which have been recorded, such as minor malformations of the heart and vessels, lobulation of the liver, malformations of the cranium, hernias, ectopia of the testes, congenital dilatation of the æsophagus, infantilism, congenital dislocation of the hip joint, hair lip and palatal defects, deaf mutism, congenital atresia of the pulmonary artery, showing that maternal tuberculosis though not transmitted from parent to child, may produce morbid developments, arrests of formation and arrest of function.

In maternal malaria, the plasmodia have not yet been demonstrated in the foetus, but the foetus may have the hypertrophied spleen, be of a delicate constitution and little able to resist post-natal infections.

Pneumonia has been transmitted from the mother to the foetus, the diplococcus having been found in the circulation and lungs.

Maternal alcoholism gives us something more definite than the foregoing. M. Nicloux has definitely settled the question of the passage of alcoholism from mother to foetus; he passed into the stomachs of six pregnant guinea pigs five ccm. of absolute alcohol per kgr. of body weight, and one hour later killed the animals, extracted the foetuses and tested both the maternal and foetal tissues for alcohol. He found that the alcohol passed in considerable quantities into the foetal blood. He also gave six women in labor sixty ccm. of forty-five per cent alcohol and in all cases was able to detect the alcohol in

the foetal blood from the cord and the placenta. In the nerve centres of foetuses from two guinea pigs which had been treated with alcohol it was found by Carrara that in the large cells of the anterior horn of the grey matter in the spinal cord, the chromophilic zones were indistinct, but the nuclei well marked. Palazzi treated a number of female guinea pigs by the injection of alcohol daily; of the fifteen treated seven became sterile, five became pregnant and gave birth to living normal young. Féré injected alcohol into hens' eggs in the process of incubation and obtained many positive results of non-development, malformations and monstrosities.

The clinical evidence shown by the statistics of W. C. Sullivan is, that of one hundred and twenty inebriate women were born six hundred children, fifty-five and eight tenths per cent of whom were born dead or died within two years, while the death rate in normal women is twenty-three and nine tenths per cent.

In maternal lead poisoning it has been shown by Porak by experiments upon pregnant guinea pigs that lead passes from the maternal into the foetal body, nor does it seem to accumulate in the placenta; it seems to be more widely diffused in the foetal tissues than in those of the mother, having been found in the skin, liver, nervous centres and elsewhere. Porak in his experiments on animals was unable to show that lead poisoning produced abortion; among the workers in white lead factories, however, it is well known that it prevents the development of the embryo,—girls who have been indiscreet going to work for a few weeks at carrying the lead in order to prevent pregnancy.

Clinical experience has shown that parents, in some cases the father only, suffering from saturnism produce evil effects upon the foetus, abortions and still-births being very common among lead workers.

Constantin Paul, proceeding from the known fact that syphilis in the parent may either kill the foetus or produce syphilis in it, came to the conclusion that in lead poisoning in the parents the offspring might be expected either to perish in uterus or to suffer after birth from diseases the result of the parental saturnism. He instances the case of a woman who had worked for eight years in a type foundry, who had had three healthy children before she commenced work, after which out of ten pregnancies there had been eight abortions, one still-born infant and one child born at full term who died at the age of five months. He records his observations on eighty-one cases in which the results were, one hundred and forty-one pregnancies consisting of ninety-one abortions, dead births and premature labors, and thirty-five infants who died in the first three years of life. He also shows that saturnism of the father alone is sufficient to prevent the normal development of the child. F. Roque in 1874 called attention to the frequency of idiocy, imbecility and epilepsy among the children of lead workers, and in most of his cases the father alone was suffering from plumbism. Rennert observed many cranial deformities in children of men working at pottery glazing, the heads were square shaped with very evident *tubera frontalia et parietalia*, these children progressed normally except that they were subject to convulsions (tonic and clonic contractions of the back and limbs); seventy-one per cent of the children were either macrocephalic or had convulsions, or both.

Mercury poisoning interferes with pregnancy according to Lize. Porak

showed that in guinea pigs there was a tendency for the mercury to be stored up in the placenta and that it was not to be discovered in the foetal organs. In cases where mercury has been exhibited to syphilitic women, the examinations of the foetus for mercury have been contradictory, but on the whole the evidence shows that it as a rule passed to the foetus. When the mother is syphilitic the administration of mercury prevents abortion; if the mother is not syphilitic, but has received mercury into the system, it produces abortion, dead births and congenital debility, but is not so fatal as lead. Phosphorus poisoning seems to produce fatty degeneration in the foetal organs as in the adult.

Arsenic appears to pass the placenta to the foetus at least in the guinea pig.

Copper tends to accumulate in the placenta, liver and central organs of the foetus.

Carbon monoxide even in comparatively small doses appears to cause the death of the foetus. The placenta seems to have some power of preventing the passage of the gas, but the blood of the foetus almost invariably gives the chemical reactions.

Chloroform and ether, though passing the placenta, do not appear to produce any bad effects on the foetus, at least if used in moderation.

Morphine has been found in the infant at birth in the case of a woman who was taking fifteen grains a day; the infant was born with a club foot. Plottier and Marquis found morphine in the foetuses and placentas of rabbits and cats to whom it had been administered.

The use of tobacco is so prevalent among men that its effect upon prenatal life through the father cannot be examined; however, it has been observed that there is a very high post natal mortality among the offspring of women workers in tobacco factories, probably due to congenital debility.

From the above it will be seen that comparatively little is known as to the effects of different conditions of the parents upon foetal life, but enough is proven to show how very great the factor of the parental condition is in the development of the child.

In the neonatal period the effects of traumatism due to abnormal position of the foetus, narrowed pelvis and the use of forceps must be considered as a cause of many cranial injuries which may result in mental deficiency or epilepsy. Nor is it necessary that the prenatal and neonatal injuries producing mental deficiency should be confined to the brain; circulatory, digestive and glandular trauma may produce pathological, metabolic and constitutional changes which prevent the mental development of the child.

The second period of neonatal life, viz., that period in which the foetal system accommodates itself to extrauterine life is one during which physiological changes of great importance take place. The change of the course of the circulation, the oxidation of the lungs, the digestive functions and probably the functions of the ductless glands are modified, commence or are completely changed at this important period. Any an tenatal defect of formation or injury which has been detrimental to the full development of any organ, which may have been latent during the antenatal life, or whose function changes in extrauterine existence, will now produce pathological conditions

which will arrest the general or localized development of the child. It is impossible to say if there is any mental activity during intrauterine life, nor even how much there is in the first few days of post-natal existence; probably little or none; so that in the feeble-minded, and in perhaps the majority of idiots, the mental defects are due to the failure of the foetal system to accommodate itself to the environment and metabolic conditions of extrauterine life. In one thousand two hundred and seventy-eight cases of idiocy, Piper states that in sixty-six per cent of the cases, the condition was congenital and in thirty-three per cent it was acquired, viz., that thirty-three per cent of his cases commenced their extrauterine life in apparently normal conditions, and remained so up to the end of the first year.

Congenital biliary cirrhosis is a disease which, if severe, usually causes the death of the child during the first months of life, but it has been shown that a partial biliary cirrhosis is not incompatible with life and that a child may live for months and even years, dying of some intercurrent disease. A case which the writer saw recently in consultation, was probably of this nature. He was seven years old, had almost acholic stools and was a low grade idiot mentally.

Anangioplasia or congenital narrowing or non-development of the arteries is a recognized cause of idiocy. In a case at Mount Hope Retreat, on which the writer made an autopsy, the arteries were found to be very small in diameter and the heart only weighed two hundred and three grammes. The case was that of a girl about thirty-five years of age, perfectly symmetrical in her proportions, but a low grade idiot from birth, so far as could be learned. The valvular orifices of the heart were small, the aorta at the aortic valve was only 6.4 cm. in circumference; the pulmonary artery, 4.7 cm.; the basilar artery, 8 mm. and the internal carotid, 1.0 cm; the brain weighed twelve hundred grammes. In this case the smallness of the heart and the weakness of muscles combined with the reduced diameter of the arteries only supplied sufficient blood to the brain for nutrition and growth, but not enough for functionation. As the brain is the highest organ above the level of the heart, it is the organ which suffers most in weakened circulation, the heart force having to overcome the force of gravity in the erect position.

Ohnmacher has observed congenital narrowing of the vessels in several of his cases of "idiopathic" epilepsy.

The thyroid gland of the mother increases in size during pregnancy and remains enlarged during lactation, showing that it is connected with foetal development. The foetal gland does not contain any thyroidin or thyreoglobulin, nor have I been able to find any iodine in the glands of children before the age of six weeks, proving that the necessary thyroid secretion for the growth of the infant is supplied through the maternal milk. In the foetal calf, however, the thyroid gland contains the active blood pressure reducing principle and cow's milk does not contain thyroidin. It may be that one reason why it is so difficult to rear infants on cow's milk is the absence of thyroidin. The foetal thyroid contains thyreomucoid which disappears soon after birth, and apparently the same substance is secreted in the thyroid in exophthalmic goitre.

The suprarenals are enlarged in the mother during pregnancy and in the

fœtus they are larger in proportion to the body weight than in adult life. They also appear to lack the blood pressure, raising secretion during fœtal life. Of the thymus and its functions and secretions but little is known, but from the fact that it consists of lymphoid tissues analogous to the spleen, it is possible that it does not form any secretion, but is an accessory to the circulation; its persistence into adult life has been noted by Ohnmacher in epilepsy and is the rule in Basedow's disease. In twenty-eight mentally weak children examined by Bournèville the thymus was absent in twenty-five.

Whatever may be the function of these glands during fœtal life it is evident from the absence of their post-natal secretions that it must be different from that function in the child.

Roger and Garnier have examined the glands of many children of syphilitic and tuberculous parents, and have found pathalogical changes which presumably would affect their functionation. In the writer's book, "The Thyroid and the Parathyroid" (Williams and Wilkins, Baltimore), the changes in the thyroid are given in detail.

Incomplete and hypothetical as this paper necessarily is, it is hoped that other workers in the field of the etiology and pathology of mental insufficiency will contribute their experience and those—and there are many of them—who are of opinion that nothing is to be done for this unfortunate class but to feed, clothe and employ them, will be stimulated to work at the problems under discussion and do their utmost to bring happiness to a helpless class as well as to relieve the state of an apparently ever-increasing burden.

HOW THREE BOYS LEARNED TO TELL TIME

MAUDE STEWART, TEACHER, MINNESOTA SCHOOL FOR FEEBLE-MINDED,

FARIBAULT, MINN.

I BEGAN time work with Raymond H. October 1st. He knew the common numerals at sight but not the Roman numerals. He could count to sixty by ones and also by fives. His first lessons were in telling the difference in top and bottom of clock. It took him one *week* to tell which was top and which was bottom at a glance, and to always hold clock face right side up. He had a clock lesson every day during the month of October. Of course it was short; sometimes five minutes, and sometimes ten. He learned that the clock had two hands like himself, but that unlike his own, one was shorter than the other. Then he was ready for the *fact* that the short hand told the hours and the long hand the minutes. He was soon able to tell any even hours either on the clock face or clock.

One day his lesson was to draw circles and mark off half circles, and quarters. Another day he cut circles, halves and quarters. He drew day after day all sorts of articles and cut in halves and quarters. We talked

about pies and cakes and literally cut cookies in halves and quarters playing they were clock faces.

Following this drill Raymond cut a circle and marked off half and put numbers twelve and six at half way mark. He also drew the quarter line and put number three and number nine at quarter mark. "After" was written besides three, and "before" beside nine. Then the common numerals were changed to Roman numerals, and it took another week of hard work for him to recognize at a glance the first twelve Roman numerals. We took up the clock face again. The words after and before were erased, and by November fourteenth Raymond could tell the hours. Much drill then followed in telling five, ten, fifteen, twenty and twenty-five minutes before and after any hour.

Some days the teacher set the hands and Raymond told the time. Other days the time was announced by the teacher and Raymond set the hands. Care was always taken to turn the hour hand a complete revolution every time. Twenty and twenty-five minutes before and after were hardest for Raymond to master. By the tenth of December he knew five, ten, fifteen, twenty and twenty-five minutes before, and after any hour. That day he was allowed to wear the teacher's watch. He counted the minute marks on the clock, and learned in that way that sixty minutes make one hour. By January first he could tell time to a minute without hesitancy, on clock face, clock or watch. He does not stop to count every minute but knows five, ten, fifteen, etc., and adds or subtracts one, two, three and four to and from them.

Ignatius S. also began his clock lessons the first of October. He knew the common numerals but not the Roman numerals. Could count to sixty by ones, but not by fives. Similar drill work was used in teaching Ignatius the hours, half hours, quarter hours; only it took more of it and had to be repeated oftener. By January first, Ignatius had learned to tell the hours, half hours and the quarter hours. His next lesson was to count by fives to sixty and to write by fives to sixty. Another day he learned and wrote

5 min. after=I;	20 min. after =IV;
10 " " =II;	25 " " =V;
¼ or 15 " " =III;	½ or 30 " " =VI.

Later he made a half circle with the Roman numerals and recited, "My clock says five minutes after something, when the big hand points to I," and so on to all the numbers. Then he took up the clock face and fixed the hands himself at five, ten, fifteen, twenty, twenty-five and thirty minutes after, as I called the minutes. By January twenty-seventh he had gone over the same work for minutes *before*, that I have described so minutely for minutes *after* any hour. He needed a great deal of drill to tell whether the clock said twenty-five minutes before or twentyfive minutes after any hour. But at last, by February fourth, he could tell time without any trouble.

Alfred S. has proven the most apt pupil. He learned to tell time in one month. He proves the rule, that these defective children learn to read much more readily than they learn arithmetic, by being the exception. Perhaps that is one reason for his taking up time so quickly. He began work April second. We talked about faces—ours and the clock's—talked about hands—

ours and the clock's—ours the same size—clock's different length. He knew common numerals, but not Roman. By April fifteenth he could tell hours, half hours and quarter hours. The same methods were used as described in the other cases. The third of May Alfred could tell time on any clock or watch without a mistake. Others in Class "A" have learned to tell ime during the year, but these three cases illustrate method used and length of time required.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. VIII DECEMBER, 1903-MARCH, 1904 No. 2-3

ORIGINAL ARTICLES.

MENTALLY DEFECTIVE CHILDREN IN THE PUBLIC SCHOOLS.

WALTER E. FERNALD, M. D.,

SUPERINTENDENT MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED.

PUBLIC school classes for mentally defective children were opened as early as 1867 in several German cities. In Prussia since 1880 these special classes have been obligatory in cities of twenty thousand or more inhabitants. Norway, Sweden, Denmark, France and Switzerland have made similar provision.

In England a class for defective children was established in London in 1891 in accordance with the suggestion in the report of the Royal Commission of the Blind, Dumb, Deaf, etc. Afterwards other classes were opened in Leicester, Bradford, Birmingham, Bristol, Nottingham, etc. General interest in this subject was awakened by the remarkably able reports of Dr. Francis Warner in 1889 and 1894 concerning the mental and physical condition of one hundred thousand school children, which showed among other things that at least one per cent of these children were so deficient mentally as to need special instruction.

The report to Parliament in 1898 of the "Committee on Defective and Epileptic Children" discussed the question in great detail and recommended certain definite legislation, which finally crystallized into the Parliamentary Elementary Education Act of 1899 which provides power to determine what children are defective; provides for an extra grant of money for the maintenance of special classes or schools for defective children; provides for compelling feeble-minded children to attend these special classes and generally provides for the management of these schools by the local school boards.

A few quotations from the admirable 1898 report will illustrate the sharp distinction made in England as to the use of the term "imbecile" and "feeble-minded."

"Throughout this report the word 'feeble-minded' denotes only these children who are not imbecile and who cannot properly be taught in ordinary elementary schools by ordinary methods."

"That children exist who, on the one hand, are too feeble-minded to be properly taught in ordinary elementary schools by ordinary methods, and, on the other hand, are not so feeble-minded as to be imbecile or idiotic, is assumed in the terms of reference to us. With this assumption we are in entire agreement. From the normal child down to the lowest idiot there are all degrees of deficiency of mental power; and it is only a difference of degree which distinguishes the feeble-minded children, referred to in our inquiry, on the one side from the backward children who are found in every ordinary school, and, on the other side, from the children who are too deficient to receive proper benefit from any teaching which the school authorities can give. The great majority of the thirteen hundred children whom we have seen in special classes have been tried in the ordinary schools, and have been shown to be incapable of receiving any proper benefit from the instruction, having for the most part learned little or nothing beyond certain habits of discipline. On the other hand, these children show themselves capable of receiving considerable benefit from the individual attention and the special instruction given in the special classes. By the age of thirteen or fourteen they may sometimes arrive at a stage of elementary instruction, equal perhaps, to that attained by ordinary children of eight or nine years of age, and they often show themselves capable of being trained in some manual occupation. Thus there is a fair prospect, that, with favorable surroundings, they may take their place in the world and may not become inmates of workhouses, asylums, or prisons."

"Though the difference in mental powers is one of degree only, the difference of treatment which is required is such as to make these children, for practical purposes, a distinct class. Public feeling would revolt, and rightly, against the permanent detention of these educable children in institutions, and therefore it is better that they should not be sent to institutions during their childhood, but should become familiar with the world in which they have to live, and should, if possible, by individual teaching and suitable training be put in the way of making their living. They would obviously take harm from association with low-grade imbeciles and ought to associate with ordinary children as much as is consistent with their receiving the special and individual care and training which they require. Feeble-minded children should therefore be considered a distinct class from those imbeciles whose mental deficiency is such that their seclusion for life in institutions is highly to be desired in the interests of society as well as in their own. The treatment of low-grade imbecile children requires to be directed, not towards enabling them to take their place in the world, but towards making them as happy as their affliction permits. They do not suffer from association with other imbeciles, and the individual teaching which is required for feeble-minded children would be wasted on them." * * *

"Thus the feeble-minded children referred to in our inquiry exist as a distinct class from imbeciles; they are not, in fact, certified as imbeciles; they are not provided for as imbeciles; they are not classified as imbeciles by

most scientific authorities; and they differ, both from ordinary children and from imbeciles, in the treatment which they require during their school life."

In England the institutions for mental defectives supported from the public funds, like Darenth, make provision for the legally "certified" idiot or imbecile, but not for the feeble-minded. It is felt that it would be a great injustice to "certify" a merely feeble-minded person. With the exception of several large schools like Earlswood and the Royal Albert Asylum and a few small homes for the feeble-minded, all supported largely by private benevolence, for many years there was practically no provision in England for the education and care of the class of mental defectives above the grade of the "certifiable" imbecile. Indeed, so far as I was able to judge, there is now in England very little public sentiment in favor of state care and support for the merely feeble-minded boy, girl or adult.

At the time of my visit to London in the spring of 1901, through the kindness of Dr. R. E. Shuttleworth, the medical examiner of the special classes for defective children for the London School Board, and of Mrs. E. M. Burgwin, the superintendent of these classes, I was given every facility for visiting and observing the classes and for studying the system of management.

At that time there were in London fifty-six special schools, or "centres," for feeble-minded children, with one hundred and twenty-three teachers and a total of two thousand and nineteen pupils. These "centres" are located in populous areas of crowded London, where the defective children selected from two, three or more large school districts are collected into one group or "centre" of two or three classes. These day classes generally receive their instruction in a detached building adjacent to one of the regular school buildings.

By vote of the Council on Education, the school-rooms for these classes must be constructed and arranged in accordance with certain definite requirements in order to obtain the special money grant. The premises must be approved by the education department. There must be twenty square feet of floor space for each pupil. There must be suitable play-grounds, drill rooms, lavatories, school-rooms and entrances, all for the exclusive use of the children in the special class. All rooms must be on the ground floor. Each child must have a separate desk. The cost of the new school-rooms, constructed as above, has been about one hundred dollars per pupil.

The selection of the pupils for these "special classes" from the various schools, and the organization and management of these "special centres" are in accordance with exact regulations laid down by the London School Board under the special Act of Parliament cited above.

The defective children are formally designated by the teachers in the ordinary schools if unfitted for promotion after two years in one grade. No child is so nominated under seven years of age. They are then examined by a medical expert who certifies to the mental defect and the need for instruction in the special schools. Children so certified are excluded from the regular school classes.

Proper records must be made at the time of admission and afterwards:—

(*a*) As to the child's capacity, habits, attainments, and health.

(*b*) As to the family history of the child.

(*c*) As to the progress of the child in the special school or class.

The children must, from time to time, be inspected by a medical officer appointed for the purpose, and records of such inspection must be kept. Provision must be made for the examination, from time to time, of every child, in order to ascertain whether he has attained such a mental and physical condition as to be fit to attend an ordinary class in a public elementary school. Such examination must be made on request of the parent. In such cases the decision of the board is not to be appealed from. Provision is also made for excluding children unfit for these classes.

The school authorities are empowered to compel a child's attendance at a special class where available, up to the age of sixteen.

Every special school or class must have managers specially appointed who visit the class from time to time.

The children must not for any lessons be mixed with the children of the ordinary elementary schools.

Each class has a separate teacher. There are generally three teachers and classes in a "centre." The principal teacher, at least, must be a certified teacher. Only female teachers are employed. The teachers receive a larger salary than the other teachers. His Majesty's Inspector must annually approve of all the teaching staff. At present they receive no special training to fit them for this work. It is suggested, however, that the equivalent of the following training would help to qualify a teacher for the work, viz:—

I General school training and kindergarten methods.
II A course of physiology and school hygiene.
III Gymnastics, or some rational system of physical training.
IV Instruction in articulation and voice production.
V Sloyd and other manual occupation.
VI Two month's work under a qualified teacher in a special class.

The prescribed course of instruction for the pupils provides for:—

I Instruction in the elements of reading, writing and arithmetic.
II Singing and recitation.
III Object lessons.
IV Drawing.
V Needlework for girls.
VI Physical exercises.
VII Manual instruction, not less than six hours weekly to each child. For the older girls practical housewifery, needlework, machine sewing, cooking and laundry work are the forms most in use. No class for this manual training may have more than eight pupils.

FORMS OF MANUAL INSTRUCTION

(*a*) Suitable for younger children:

Paper mat-making.
Clay-modeling.
Macrame-work and various other forms of string work.

Pricking, coloring, and kindergarten sewing.
Basket-making.
Paper-folding.
Bead-threading.
Paper-cutting and mounting.
Building with cubes.
Worsted-work.
Needlework.

(*b*) Suitable for older boys:
Wood-work of various kinds.
Shoe-making.
Basket-making.
Modeling in pasteboard (the German pappé work).
Chair-caning.
Mat-making.
Tailoring.
Gardening and Farm-work.

(*c*) Suitable for older girls:
Cookery.
Laundry-work.
Practical housewifery.
Needlework.

N. B.—Out of the minimum six hours per week of manual instruction not more than two hours may be devoted to needlework.

The number in average attendance in the special class must not exceed twenty for each class, except if there are more than two classes in a "centre" there may be an average attendance of thirty in each class after the first two.

The hours during which a special class is opened must not exceed two and one half in the morning and two in the afternoon. An interval of at least an hour and a half must be interposed between morning and afternoon sessions.

Boys and girls under fourteen are taught in the same classes. No pupil under seven is received. Pupils may be kept in these classes until sixteen years of age.

Corporal punishment is used "when necessary."

Pupils who live at a distance from the "centre" are often provided with a conveyance or "guide" to and from school at the expense of the school funds. A large majority of the children are able to go to school unattended, but several accidents, one of which was fatal, are recorded as having happened to the children on the way to or from class. Certain pupils not otherwise provided for are "boarded out" near the special classes at public expense.

Parents who are able are expected to pay a certain sum for the special instruction of their children.

In some of the poorer districts the children are provided with a substantial midday meal or a glass of milk midway of the morning session.

The act of 1899 makes provision for the institutional care and training

at public expense of certain feeble-minded children not otherwise provided for, in certain "certified" schools, similar to the training homes for feeble-minded girls associated with the Society for Promotion of the Welfare of the Feeble-Minded. I believe there are no training homes of a similar character for feeble-minded boys.

In this connection the following quotation from the 1898 Report is of interest:—

"Generally speaking we do not consider that large institutions are the best form of provision for the education of feeble-minded children. Dr. Walmsley in his evidence has referred to some of the improved cases in Darenth and to the disadvantages of retaining them in such a place; and these disadvantages apply only in less degree to the system of retaining feeble-minded children in institutions by themselves. Mr. Colvill has well expressed the disadvantages of institution life when applied to children who will have to try to earn a living in the country. Defective children in the country are better fitted for their future by living at home in family life, and seeing all the sides of rural life and labour among their own people than by being drafted away to an institution necessarily very different in its arrangement from the ordinary rural home. In the institution all the manual work is of a more specialized type and under constant supervision, and the child is returned after a few years to things which have become unfamiliar and to people who have ceased to be his friends."

"Moreover, when once school authorities begin to set up institutions for feeble-minded children, there is a risk that the line of discrimination may be drawn too low, in other words, that they may send to such institutions children who are not merely feeble-minded but imbecile, and may thus undertake work which lies outside their province, and may interfere with provisions made for imbecile children by other means. There are, however, cases of children admissible to the special classes as feeble-minded for whom an institution may be for a time preferable by reason of bad general health, or unsatisfactory home surroundings: or, again, by reason of some disabling physical defects, which prevent a child from attending day classes."

In the schools I visited the school-rooms were well lighted and ventilated and decidedly cheery and attractive. There seemed to be a good supply of appropriate school material for object teaching, manual training, apparatus for special sense training, pictures and picture books, etc.

The teachers had evidently been selected with great wisdom. As a class they impressed me as superior teachers well equipped for their work, with enthusiasm and zeal and great personal interest in their pupils. The teachers keep in touch with the homes of the children and try to secure the co-operation of the parents.

I was told that the prejudice and disfavor toward the special classes, which is almost universally shown at first by the parents, usually disappeared when the child began to show improvement. As a rule, the classes are assembled and dismissed a few minutes before or after the classes for normal children in the nearby schools. There seemed to be an entire absence of any teasing or any other interference with the pupils on their way to and from school, although the popular name for the special class is the "silly class."

In the schools that I examined the pupils seemed distinctly inferior, both mentally and physically, to the pupils found in the school departments of the American institutional schools for feeble-minded. I saw very few pupils of the same degree of intelligence as the brighter school classes at Elwyn, Syracuse and Columbus; and the standard of nutrition and bodily vigor seemed decidedly below that of pupils in American institutions or in the English institutions.

From the records of individual cases and the admirable school reports it was evident that a good deal of mental and physical development was obtained with the majority of pupils, but here again I could but feel that the tangible results were no more satisfactory or practical than those we expect and generally obtain by institutional school training.

I made many inquiries as to how large a proportion of the pupils trained in these special classes became self-supporting or earned regular wages after leaving school. In the annual report of 1899 the special classes for mentally and physically defective children, Mrs. Burgwin reports that "ninety-two children have left the classes, being over fourteen years of age and have found some kind of employment; fifteen girls as general servants with an average weekly wage of sixty-two cents; six girls work as laundresses; twelve work at home; one is a dressmaker's apprentice (doing well); eight boys are regularly employed as errand boys; six flower or fruit sellers; eight van boys; eight in factories; one cabinet maker; two harness makers; one wood carver; one in brick field; two in iron works; one printer; one cigarette maker; one milkman; one farm laborer. The highest wage for boys is two dollars per week and the lowest sixty-two cents."

This report was made before the *physically* defective were separated from the *mentally* defective and there are no means of determining how many belonged in each class. It should be understood that in England the scale of wages for normal workers is much lower than in America. The specific inquiries which I made of the teachers in 1901, when only the mentally defective were considered, did not make so favorable a showing. I was told of only a few cases earning more than a few pence a day, and these cases seemed to be mostly employed in washing dishes or scrubbing floors in restaurants, running errands or some other precarious form of the lowest sort of unskilled labor.

The fact that in England labor-saving devices and machinery are used much less than in America, makes it comparatively easy to obtain this kind of work. It should also be considered that the standard of living of the poorer classes in London is much below that of similar classes in America, so the few pence earned daily by those boys and girls may go a long way towards furnishing the food and shelter which would satisfy their requirements. When these classes have been in operation for a longer period and a much larger number of children have been graduated, more definite information on this point will be available.

From all the information that I could gather it seemed to me that the nearly ten years' experience with the special classes have not proved that a large proportion of feeble-minded children can be so educated and trained in the special classes as to be able to support themselves by their own efforts

and wages; or that they become wholesome or desirable members of a modern community.

I believe that careful observation and study of the life history of large numbers of these specially trained pupils will show the need of life-long protection and assistance.

One result of the existence of these special classes has been to make evident to the teachers themselves the need of much more extensive institution provision for the feeble-minded people past the school age.

The history of the treatment of the mentally defective in America differs in many respects from that in England and on the continent. In America custom has gradually sanctioned the popular use of the term "feeble-minded" to include all degrees and types of mental defect from that of the simply backward boy or girl unable to profit by ordinary school instructions to the helpless idiot a hopeless, speechless, disgusting burden. This inaccurate use of the term "feeble-minded" is largely in deference to the popular prejudice towards the harshness of the terms "idiot" and "imbecile."

The cardinal features of idiocy and imbecility, the inferior physical organization, undeveloped special senses, defective muscular co-ordination weak will, feeble power of attention and observation, moral obtuseness and obliquity, all of these are as truly the essential condition of mere feeble-mindedness as of imbecility or idiocy. It is a difference of degree and not of kind.

The causes of idiocy and imbecility are the causes of feeble-mindedness. The pathological conditions found in idiocy and imbecility differ only in degree and extent from those found in the brain of the feeble-minded.

Practically all of the American institutions for mental defectives were organized as strictly educational institutions. In one of his earlier reports Dr. Howe said, "It is a link in the chain of common schools, the last link indeed, but still a necessary link in order to include all the children in the state." From the beginning in 1848 to the present time, in nearly, if not all, of these schools in admitting new pupils, preference has been given to the cases with lesser degrees of mental defect as offering greater opportunity for useful development.

The admission and retention of low grade idiots and imbeciles to these institutions and custodial care of adults in large numbers came about slowly and gradually.

There has been a general belief that even the slightly feeble-minded could be successfully trained and educated only under institution conditions, where not only the proper school instruction could be given, but where the child's whole life could be controlled and regulated. At the same time it has been recognized that in institution life, notwithstanding the many advantages not to be obtained elsewhere, there is more or less loss of the opportunity for profiting by the teaching of experience obtained in normal family life in the home and in the outside world. It is possible, however, that on the whole the child gains more than he loses.

"In a well regulated institution the child's life is carefully supervised; he is told when to get up in the morning, what garments to put on, when to go to meals, what articles of food he shall eat, how much he shall eat, and

he is kept from danger of all kinds; his daily duties, conduct and even his pleasures are plainly indicated and prescribed, and finally he is told when to go to bed at night. This guardianship is absolutely necessary, not only for his immediate welfare, but that he may acquire proper habits of life. But we try to accomplish all this in such a way that the child's personality shall be developed and brought out, and not lost sight of and extinguished. We spare no effort to bring into each child's life and experience that knowledge of common events and familiarity with the manners and customs of ordinary life that are just as essential parts of the real education of normal children as the usual instruction received in the school-room."

The hopes of some of the earlier leaders in this work that a large proportion of the higher grade cases could be educated to the point of supporting themselves, have not been realized, although each year a certain proportion of the trained cases leave these institutions and lead useful, harmless lives, supporting themselves by their own efforts. Of the great majority of these trained cases it has well been said that they may become "self-supporting but not self-controlling."

The one great deduction from the sixty years' experience in the education of the feeble-minded, is that under the best conditions only a very small proportion even of the higher grade cases become desirable members of the community. They need protection and care and the family and community should be protected from their certain tendency to drift into pauperism, prostitution and crime.

Notwithstanding the opportunities for the instruction of feeble-minded children in the existing American institutions, there are certain reasons justifiying the organization of special classes in the public schools of the larger cities of this country.

It has been fairly well proved that Dr. Warner's estimate holds good here, and that at least one per cent of the children in the public schools under fourteen years of age are defective mentally.

I can readily understand that a parent with a refined, comfortable, well-regulated home, would greatly prefer the special classes to an institutional school. One of the greatest benefits would be the relief which these classes would afford to the normal children in the public schools, who are annoyed and hampered by the presence of defective children.

Every child has the right to receive education suited to his need and capacity.

It is a great hardship to the child and parents to send a child of tender years away from home to a distant institution to be cared for by strangers.

In spite of the great advantages to be obtained in the institution the child is deprived of normal home life, the moral and social influence of the mother and the wholesome relations with the community. As a rule the pupil would be put under special training much earlier if such classes were available. Many pupils would receive training who would not be sent to an institution. Under present conditions many cases are entirely deprived of opportunity for education.

The suspicion of pauperism would not be felt in the special classes.

These special classes can be quickly and easily organized and increased

in number, making a very flexible system of providing and extending opportunities for training defectives. They do not involve the expenditure of large sums of money for construction of buildings. The actual expense of such teaching is directly assessed upon the community receiving the benefit.

It is a striking fact, however, that the reason for the great majority of the applications for the admission of pupils to our institutions is quite as much for the relief of the *mother* or *the family* or the neighborhood, as for the benefit which the child himself is expected to receive. A feeble-minded child is a foreign body in a family or modern community. Countless loving mothers have been worried into nervous breakdown or insanity by the ceaseless anxiety and sorrow caused by the presence of the blighted child in the home. Many fathers have been driven to drink and daughters to the street to get away from the unnatural and unpleasant home conditions caused by the defective one.

Unfortunately a very large proportion of the feeble-minded children come from homes where the class training would not be supplemented by the good hygienic conditions and the desirable moral and intellectual influences which are quite as necessary as the strictly scholastic training.

Another practical obstacle would be the unwillingness of the average American parent to publicly admit the fact that his child was mentally defective, when the defect seemed slight. The tendency is to blame the teacher for the lack of results.

It is doubtful if the few hours per day under school instruction will accomplish satisfactory results with the average defective pupil. The necessarily small classes or groups of classes do not afford the opportunities for desirable and important classification of the pupils according to age, mental ability, etc.

It should be remembered that under the most favorable conditions hitherto, a very large proportion of feeble-minded persons, even of the higher grades, eventually become public charges in one way or another. No one familiar with the physical and mental limitations of this class can believe that any plan of education will ever materially modify this fact. Any relief as to public support to be obtained from public school training can be only temporary. Feeble-minded *children* may be tolerated in the community, but it is a great responsibility to inaugurate any plan on a large scale which does not withdraw from the community the defective adults. The feeble-minded are powerless to resist the physical temptations of adult life and should be protected from their own weakness.

"The brighter class of the feeble-minded, with their weak will power and deficient judgment, are easily influenced for evil, and are prone to become vagrants, drunkards and thieves. The modern scientific study of the deficient and delinquent classes as a whole has demonstrated that a large proportion of our criminals, inebriates and prostitutes are really congenital imbeciles, who have been allowed to grow up without any attempt being made to improve or discipline them. Society suffers the penalty of this neglect in an increase of pauperism and vice, and finally, at a great increased cost, is compelled to take charge of adult imbeciles in almshouses and hospitals; and of imbecile criminals in jails and prisons, generally for the remainder of their

natural lives. As a matter of mere economy, it is now believed that it is better and cheaper for the community to assume the permanent care of this class before they have carried out a long career of expensive crime."

"The fate of the average feeble-minded girl out in the world is only too well known. A feeble-minded girl is exposed as no other girl in the world is exposed. She has not sense enough to protect herself from the perils to which women are subjected. Often bright and attractive, if at large, they either marry and bring forth in geometrical ratio a new generation of defectives and dependents or become irresponsible sources of corruption and debauchery in the communities where they live. There is hardly a poorhouse in this land where there are not two or more feeble-minded women with from one to four illegitimate children each. There is every reason in morality, humanity, and public policy that these feeble-minded women should be under permanent and watchful guardianship, especially during the child-bearing age."

SHOULD THE SCOPE OF THE PUBLIC SCHOOL SYSTEM BE BROADENED TO TAKE IN ALL CHILDREN CAPABLE OF EDUCATION?*

ELLEN LEGARDE, DIRECTOR OF PHYSICAL TRAINING, INCLUDING SCHOOLS FOR BACKWARD CHILDREN, PROVIDENCE, RHODE ISLAND.

THERE is a homely saying that the proof of the pudding is in the eating. That the education of the mentally defective child should be included in the public school system, the results justifying the effort made and consequent outlay, has been proved in the city of Providence within the past seven years. In this the Providence public school system answers in the affirmative the question under consideration, and it is my privilege to explain how broad and generous the city has been and what it has actually accomplished.

Feeble-mindedness, a state of arrested psychial development, will always be an interesting study to the physical director, who realizes that a mentally weak child is almost without exception defective physically and necessarily physical education should precede mental and always progress with it, hand in hand.

As all physical directors know, this class of children is to be found in every school building, and where medical inspection does not exist I maintain it is the duty of the physical instructor to remove defectives from the mass, and, when noting that nervous and muscular powers are far weaker than those of the normal child, to insist that he be trained along slower and more careful lines, not abandoned to disgust and neglect or left in the rear

*Read at the N. E. A., (Department of Special Education).

of the procession.

In the proper education of this class of children, Germany, in 1863, was the pioneer. In 1874 Norway followed, England in 1892 and later Switzerland and Austria. In Prussia, since 1880, the maintainence of special classes of schools for defectives has been obligatory upon towns of twenty thousand population. The duration of attendance is usually six years. The cost of these auxiliary schools, as they are called, is borne by the town. In the last report of the United States Bureau of Education, the statement is made that, "In Germany the care for weak-minded or mentally defective children has in recent years greatly increased. Such children," the report reads, "have been gathered either in special ungraded schools or separate classes. A number of German cities have proceeded to thus aid the weak, and at the same time enable the classes or grades of normally endowed to progress at a more rapid rate in their studies. While in 1894 Prussia had only sixteen cities in which provision was made for seven hundred such children, there were in 1896 as many as twenty-seven cities maintaining thirty-eight schools with two thousand and seventeen children. Such institutions are all within the city school systems; they are integral parts of the system."

In Norway, children tested in these special classes are either returned to the regular schools if fitted, or remain in the Auxiliary Classes the whole of their school life, or are sent to an institution for mentally deficient children. The German plan, making these schools a part of the school system, is that followed in Providence. The method of analyzing the future of the pupils as carried out in Norway is also that pursued in Providence. In England, as on the continent, the proportion of children requiring special instruction is found to be one per cent of the population. I believe that to be about the same percentage in our public schools, but I fear it is much higher among the wealthier classes, if I am to judge by the number of children I learn of from private consultation. These backward children are in families not familiar with public school plans, with parents who would not dream that a city was wise enough to provide training for defectives and would question its success at that.

Providence in 1894 was the first city in the United States to support public day schools for mentally backward boys and girls. In 1899, similar schools were opened in Boston, Chicago and Philadelphia. The charts here shown, prepared by the Philadelphia Public Education Association, illustrate the history of the growth of these schools in this country.

The three schools for backward children in Providence, incorporated in the public school system from the start and most generously maintained, are really the outgrowth of the disciplinary schools. Three of the latter were opened in 1893, and at first, besides including children who required to be corrected for truancy and misconduct in the ordinary schools, mentally backward pupils were also assigned to them. It was thought wiser to separate these defectives from the truants, and gradually one after another of these peculiar schools was opened in different parts of Providence until now three are in existence. As in London, fifteen pupils are assigned to a teacher. Germany allows twenty-one, Switzerland nineteen, and Norway twelve. I maintain that fifteen pupils of this type are all a teacher should

have. In Providence in 1899 and 1900, the enrollment was the same, forty-two. In 1901, fifty-four pupils and in 1902, seventy-one. The cost of these schools in 1901-2 was $2,773.43, about $5.00 a month per child. The ages run from six years to seventeen. Almost all come directly from the public day schools. They are chosen on the judgment of the supervisor of these schools, suggestions often coming from the class-room teacher, the physical director or the assistant superintendents of grammar and primary schools.

The methods of developing the arrested or weak mental and muscular powers are most interesting. Seldom do these children walk correctly, they have little sense of rhythm, hands and feet cannot move in unison. Either too restless to sit still or too languid and passive to do more than breathe, they present a problem to the physical educator, who longs to make them as other children are. Exercises requiring at first little or no effort, but always training in time, in co-ordination, in balance, in grasp, in powers of concentration, in strength and memory, are all used and gradually increased in power and velocity, until the once backward pupil is doing nearly as well as the normal child two or three years younger than himself.

Lacking in powers of articulation, for many of this class of children have defects of speech, the Ward, or marked system of reading, is used in the mornings, and unmarked reading in the afternoons. Seat work for reading is taught by very large letter builders, nearly one and a half inches long. Number is taught also by very large objects, at first, large colored blocks eight inches long, using the primary colors; later by various objects all, however, larger than those in use in the ordinary primary school. The color sense in these children is so often deficient that this instruction is a part of every day's lesson. Geography and language are taught in games and talks, and the children encouraged to express themselves freely and correctly. Singing it is possible to gain by number first as in the regular grades and by songs. Drawing is done upon the blackboard in the afternoon to illustrate all the reading lessons. Also large pieces of wall paper are taken, and with colored pencils drawings are made and colored upon the plain surfaces at the back. Sewing, weaving and basketry are all employed for hand and eye training. I place great faith in the Swedish exercises in gymnastics for co-ordination, and in musical drills with wands and dumb-bells for rhythm and for gaining interest and attention. Many of this class of children tire of games and lose patience and get excited, but are always devoted and constant to piano and dumb-bells. The drum and triangle are great aids in this class of schools. Lately in these schools we have tried dancing steps. The teachers in these schools consider the physical training the greatest aid to the greatest need of the children.

In what would appear apparently as a hopeless task, the teachers in these three schools for atypical children are devotion itself. All have been graduates from our city schools and in our excellent city training schools. Each understands kindergarten methods and has served an apprenticeship as assistant in a disciplinary school. There have been five teachers in the seven years of existence of the schools, and each is a marvel of tact, perseverance, enthusiasm and success. They are paid $750 a year and are worth three times as much. One school is detached entirely; the other two in separate rooms

of disciplinary schools. The rooms present the appearance of an unusually well-ordered model school. Quiet, industrious children, clean and correctly and well-clad, for we insist upon that, with every evidence of correct manners, the fastidious visitor wonders why the school is set apart as one for defectives. But there is the pale, flabby-face, the dull or ever-shifting eye, the protruding ears, open mouth, low receding forehead, the restless or apathetic body, and other physical evidence of poor bodily or mental stamina. Encouragement and praise are freely given. Happiness of a right sort is ever present, and the animal affection, often a part of the character, is trained in habits of helpfulness for the teacher, for the school-room-pet in cat or dog, or for a weaker child needing constant aid.

It is safe to say eighty per cent of the children are cured. By cured one does not mean made into Edisons, Marconis or Roosevelts, but lifted up to better things. Oscar, who greets me in the big department shop where he is a cash-boy, is able to be an intelligent cash-boy, slow of speech to be sure, but patient and painstaking. Angelina May, who at fourteen used to follow me noisily on the streets and insist I note her new gown or shoes, is now at twenty in a jewelry shop packing cheap jewelry and putting what was once a restless, talkative, never concentrated self into quiet, well directed, energetic labor. Jacob and Annie will never be any better, but they can read and write, know right from wrong and have been taught that cleanliness is a necessary part of life, as well as good manners. John and Susie and Maude are back in the grades, not brilliant but doing as well as their limited abilities will allow. Not disgraced because they were "born short" but aided and encouraged to make the best possible of what is in them. Such are the types. Few are lost, many saved, all improved.

The future holds many plans for the betterment of these schools. They are under the care of a special supervisor who visits them once in two weeks. It is hoped to concentrate them in one building in the centre of the city, to pay transportation and to provide lunch. For these children lack in nutrition and any public school system starting such schools should provide at once, with books and slates, either a lunch or mid-day meal. The superintendent of the Providence schools, W. H. Small, desires medical inspection for these deficients. This will allay any objection on the part of the parent, when told his child should be placed in a school for pupils of arrested development. It is the intention of the superintendent to pay more attention to the cultivation of the muscular powers of these atypical children in the further advancement of manual training. This will be accomplished when we have a central school with proper work-rooms, gymnasium, etc. Philadelphia is in advance of Providence in its medical inspection of defectives, in its medical study and in its manual training; but Providence points with pride to the fact that the school funds pay for the cost, and to the fact that seven years of growth are seven years of progress and actual accomplishment in making a class of children of value to the community and to themselves, that might have been a drawback and a disgrace.

FIVE YEARS' EXPERIENCE IN TEACHING MENTALLY DEFECTIVE CHILDREN IN A PUBLIC SCHOOL

FRANCES E. CHENEY, SPRINGFIELD, MASS.

IN writing an account of five years' experience in teaching a class of mentally defective children in connection with one of the public schools of Springfield, Mass., general statements as to numbers, nationality, age, length of attendance, etc., would seem to be of first interest, and later a more particular account of the work of one year.

The school was established in May of 1898.

NUMBERS—During its existence thirty boys and five girls have been in attendance. The largest membership for any one year has been fifteen, the smallest ten, and the average membership twelve.

NATIONALITY—Twenty were Irish, six were Americans, six were Russian Jews, one was German Jew, one was Swede, one was Assyrian.

AGE—The ages upon entrance varied from six to fourteen years. Twenty-three entered between the ages of six and ten years. Twelve entered between the ages of eleven and fourteen.

The age grows younger as time goes on, there being at present four children in attendance who have never attended any other school and whose parents or guardians have asked to have the children admitted.

LENGTH OF ATTENDANCE—Of these thirty-five children, eighteen have attended the school for one year or less, and seventeen have remained from two to five years.

Eleven were not distinctly feeble-minded, but appeared to be hopelessly behind the work of the grade they were in, and were too old to be placed in lower grades. One of these eleven soon left school to go to work, and the remaining ten were promoted, six of them to grade schools and four to ungraded grammar preparatory schools. The six who were promoted to grade work are doing well in grades from second to sixth.

Nine have gone to work and are earning in factories from sixty cents to one dollar a day. Of these nine, three were distinctly feeble-minded, and the remaining six below the average in mental ability.

One only who has left school is unemployed. This boy is a low-grade defective and should be placed in the state institution at Waverley.

Three have been lost track of by removal from the city.

One has been sent to Waverley, the mother having died and the father deserting his children.

CONDITIONS OF ENTRANCE, ETC.—No parent is forced to send his child to the school. He usually arrives at the decision himself from personal observation of the child's inability to compete with normal children.

The hours of attendance are five a day, from nine to twelve, and from two to four. The city pays carfares for those not within walking distance of the school.

We have tried first of all to better the physical condition of the children,

as far as possible, and as a result six have had adenoid growths removed, three have been treated for deafness, two fitted to glasses, while twelve have had weekly baths in an adjacent school.

School Equipment—The school has been generously equipped with adjustable and movable desks, four manual training benches, each furnished with a set of tools, a large sand table, Indian clubs, dumb-bells, a medicine ball, large rubber balls, a set of Speer number blocks, kindergarten material adapted to the needs of the children, and such additional school material as could be used to advantage.

WORK OF THE YEAR 1902-3.

Physical Work—During the past year, especial attention has been given to physical work and manual training, two hours a day being devoted to these ends. With the co-operation of the supervisor of physical training, an outline of various exercises and games with balls, bean-bags, etc., was arranged that would bring into use every muscle of the body, and with especial thought of co-ordination. From this outline a weekly program was made out, so that each day, if possible, the whole body was given intelligent and beneficial exercise. In addition to this work formal Swedish gymnastics were given for fifteen minutes daily to two-thirds of the school, the ground covered being five-eighths of that laid out for second and third grades in the regular schools.

Manual Training—The manual training work has included simple sawing of firewood, and planing and sawing in the making of flower sticks for use in the kindergarten garden, as well as for the garden belonging to the school. This work was done by those having but little ability, while those more able made balance beams and a ladder for physical work in the schoolroom, coat-hangers, coat-racks, broom-racks, bread-boards and shelves for their own homes, and finally three boys have constructed and painted two-wheeled carts of soap boxes. The polishing of the tools has been done by the children.

Preparation for School Work—One-third of the school this year has formed a sort of training class in preparation for regular school work. Much ball throwing and catching has been done, walking on balance beams, hopping, jumping and walking in the spaces of a ladder placed horizontally on the floor, and simple manual training work as mentioned above.

Sense training has been the principal feature of the work of this group of children, much black-board work in preparation for writing and drawing, and various devices in the sorting and arrangement of blocks, shells, beans, tablets, pegs, pictures, etc., to prepare the way for the ability to distinguish differences in such abstractions as letters and words.

Regular School Work—The reading and number work of those capable of undertaking it, viz., two-thirds of the school, has been carried on along the lines of first-grade work. One boy has progressed as far as third-grade reading, and one as far as second-grade, but both are still doing simple second grade number work.

Good third grade results in writing and drawing have been secured. Clay work was the preparation for drawing and a half-hour lesson was given

weekly. Following this came three months' work in drawing with colored crayons with excellent results.

Lessons in reading the clock face have been given three days a week. Story-telling and the reading of stories or poems two days a week. Singing of songs and simple interval work have been a part of the daily program.

MISCELLANEOUS WORK—The children have assisted in the care of the black-board, the dusting of the school-room, the sweeping up of shavings and saw-dust and in the care of the plants.

A flower garden has been in existence for two years. The children have helped to dig, plant and weed, usually outside of school hours, and have made and painted stakes for wire fences for the beds. Bulbous and fall-blooming plants have been raised. In some cases this work has inspired the making of gardens at home.

An effort has been made to impart general information, kindness toward fellow-beings and animals instilled, a love of nature cultivated, the dignity of labor emphasized, and habits of personal cleanliness encouraged.

The aim in establishing the school has been to provide the kind of training that would fit certain feeble-minded children to become self-supporting, and its aim in the future will be to supplement the work already done by such industrial work as will fulfil this end. The school owes much to Dr. Fernald, of Waverley, Mass., whose constant sympathy and intelligent suggestions have been invaluable.

It is hoped that more light will be shed as time goes on, on the duties owed by cities to those of their unfortunate citizens of feeble mind who have *passed* school age, not only for the sake of such citizens, but for the sake of the whole community and of the nation.

WHAT FOUR MONTHS' TRAINING HAS DONE FOR WALTER.

FANNY A. COMPTON, ST LOUIS, MO.

DECEMBER 1st, 1902, Walter entered our School with a very unpromising introduction.

His father said, "Miss Compton, I am in despair about my boy's education. I have tried public and private schools; and in every instance the teachers have asked me to withdraw him, as he could not be taught anything. He knows absolutely nothing. As a last resort I bring him to your School, trusting you may be able to throw a little light on his darkened intellect. Physicians have told me that it will be of no use to attempt to educate him, but I cannot give up trying until I have placed him under your peculiar training."

The child was quite prepossessing, having an olive complexion and dark brown eyes that danced and sparkled. He was well formed, of the average size for eight years and there was nothing upon first introduction that would

lead one to suspect that he was different from normal children. His articulation and inflection being perfect, one was surprised upon longer acquaintance to find the child so deficient.

The child had never been robust, having a weak stomach and an inactive liver.

He had been humored to everything at home; therefore was thoroughly selfish, quarrelsome, destructive to playthings and his own clothing, and extremely whimsical as to his eating. His attention could not be held more than a moment, and he had no notion of minding when spoken to.

His powers of concentration seemed utterly lacking. His conversation was rambling, nonsensical, and meaningless, as a rule; but when reprimanded for indulging in such nonsense, he would quickly "change his tactics," and converse with one as intelligently as any child of ordinary mentality.

When left alone, he would walk about flopping his hands up and down rapidly with a perfect wrist movement. His step was springy. With each step he would rise on his toes, causing a slight swaying forward and backward when walking.

The child was extremely nervous and excitable. No cause can be given for the child's condition.

His power of imitation was poor, but he had a good memory. His table manners were very, very poor, and his general behavior was such as to require constant supervision.

After four months' training and instruction, his record is as follows:—

READING: Twenty-eight pages of "Hiawatha Primer;" twenty-four pages "Cyr's Primer"; reads same in script or print, equally well. Can tell the stories in his own words, showing a perfect understanding of what he has read.

SPELLING: Spells thirty-five words correctly from "Hiawatha;" forty-two from "Cyr's;" besides many in connection with the phonetic work.

WRITING: Writes his name well; and all the letters (small and capitals) from dictation in any order. He is beginning to combine the letters into words in dictation exercises.

PHYSIOLOGY: Names—Parts of Body; Bones of Body; Joints of Body. Knows about muscles and can give illustrations of voluntary and involuntary.

GEOGRAPHY: Bounds United States. Names Great Lakes in any order asked. Can point to following states, Missouri, Illinois (native state), Arkansas, Oklahoma, Tennessee, Ohio, New York, Virginia, Maine, Florida, California, Texas, Colorado, Utah, Minnesota and Connecticut.

He has been taught these in various ways such as "What state was Washington born in?" McKinley, Roosevelt, etc. "From what state did George come?" (George is one of the pupils.) An orange is shown the pupil and he is asked to tell the names of the states in which oranges grow. In connection with "Nature Work," the child is taught many states, cities,

rivers, oceans, lakes, mountains and countries. The study of "Birds" brings in many states and sections of the country.

Walter can point to the Rocky Mountains, Mississippi and Missouri Rivers, St. Lawrence River, Great Salt Lake, Pike's Peak, Yellowstone Park, Atlantic and Pacific Oceans, New York City, Chicago, Boston, St. Louis, Jefferson City, Buffalo and Denver.

The sand-box has helped to hasten the work and give a clear understanding of the matter presented.

COLORS: Has learned all primary and secondary colors.

FORMS: Tells readily any form presented.

NEEDLEWORK: Sews buttons on well.

DRESSING: Dresses and undresses himself without the least assistance; lacing and unlacing his shoes and tying the bow-knots.

BATHING: Bathes himself under supervision. In the case of dressing and bathing, he did not try to help himself in the least when he came.

TABLE MANNERS: Helps himself to butter, spreads the butter on his bread, cuts his meat, and in every way helps himself in a natural (normal) way.

Last of all I speak of number work, as I consider his progress along that line has been wonderful, considering his limitations.

NUMBER WORK

ARABICS:—

Has daily practice in writing and reading numbers to one hundred. Finds any hymn not to exceed one hundred. Writes correctly any number not to exceed one hundred, from dictation. Has written numbers from one to one hundred, with but two suggestions. Makes his figures very well.

ADDITION:—

Adds 1's to 100;	Adds 5's to 100;
" 2's " 100;	" 10's " 100;
" 3's " 18;	" 6's " 12;
" 4's " 12;	

" 3 + 2, 5 + 2, 7 + 2, 9 + 2.

COINS:—

Knows names and values of all, and can name several articles each piece of money will buy. Knows several combinations:—

2 halves in a dollar;	5 dimes in a ½ dollar;
4 quarters in a dollar;	5 nickels in one quarter;
10 dimes in a dollar;	2 nickels in one dime.

ROMAN NOTATION:—

Reads and writes to X.

CLOCK:—

Has learned to tell time perfectly.

CALENDAR:—

Makes a diagram of the calendar for April, writing the word April and abbreviations for the days of the week, besides writing the numbers correctly. Seldom does he make a mistake with this work. He knows the names of the

months, days of weeks and seasons consecutively and in any way one wishes to puzzle him.

GROUPING:—

Reads groups to six and can play dominoes well in every case calling for the correct number from his partner

MEASURING:—

Measures window-sills, doors, tables, black-boards, slates, books, pencils, etc., and thoroughly understands what it means to say twelve inches make one foot, three feet make one yard. He can measure water in pint, quart and gallon measure and understands two pints make one quart four quarts make one gallou.

MARKETING:—

Can tell you without hesitation:

Eggs, lemons, oranges, etc., bought by dozen;
Potatoes, turnips, carrots, pk or bu.;
Milk, vinegar, pt., qt. or gal.;
Butter, sugar, coffee, etc., lbs.;
Knows that pork is meat of a hog;
Knows that veal is meat of a calf;
Knows that mutton is meat of a sheep;
Knows that beef is meat of a cow.

Nothing is taught as a mere memory work in the school except recitations.

Walter has memorized two short recitations, and his delivery is little short of that of a normal child of his age.

I neglected to speak of his knowledge of "Birds," and their habits etc. We have two charts of birds containing at least forty birds.

BIRDS:—

Walter cannot be puzzled with questions relating to either chart.

GYMNASTIC WORK:—

He excels in along all lines.

This work has not been accomplished without great effort on the part of his instructors. He has had purely individual work except in Calisthenics, Kindergarten work, Nature work, Physiology and Geography. His lack of attention and concentration had to be met in a variety of ways—well nigh exhausting the nerve force, magnetism and tact of each teacher in whose charge he was placed. Each week we find him more tractable and attentive. His health is excellent and he now has a great desire to excel and be "a smart boy," as he terms it.

I wish that I might have time to tell of the progress of some others in our school, none so rapid, but none the less interesting because of the slower development.

Our school is small, but we are having good results, and are striving for better every year.

MORALS

MISS ALICE T. MORRISON, VINELAND, N. J.

THE true education of the normal child means the fullest development possible of the whole being of man.

Experience with defective children has taught us that the above is not true of the feeble-minded child; we say rather that, "The true education of backward or feeble-minded children is to teach them in their youth what they will make use of when they become men and women in years." It is to the moral side of education for this class of children that I wish to call you attention to-day.

For a moment let us consider what the morals of a mentally deficient child with inherited evil thoughts, propensities and desires, would become were we to give him the same training as a normal child. We know that to develop one sense alone, disregarding all others, this one sense will not reach the same degree of proficiency as it would had the same amount of time, training and energy been given to the development of all the sense-organs. So it is with the whole being, when we develop a child's mental capacity we have also developed his moral capacity. Now, then, with a child whose inclination is to be morally bad shall we develop him mentally that he may become scientifically bad, or shall we leave his present mental condition alone—trusting that if his hand be filled with useful occupation his inclination for the bad will grow gradually less? For instance, John, a typical feeble-minded child, who can neither read nor write, cannot even tell how many two and two are, knows nothing of form or color, etc., whose inclination is to pick locks, steal, lie, use profanity and be generally bad; shall we give this child training in school, teach him all that it is possible for him to learn, so that he may pick locks according to rule, steal, lie and deceive professionally, or shall we take John to the farm, let him work with the things of nature under guidance of conscientious men, where locks to pick are not and where the temptation to steal is almost entirely removed and the inclination to lie and deceive lessened to a great degree?

You of course answer that it is best to make him useful; yet when children are brought to us for training and development, one of the first questions or desires of the average parent or guardian is that "my child shall go to school and if possible be taught to read, write, and the thousand and one little things which go to make up the sum total of school," forgetting entirely what the moral side of the child would become should he reach this degree of mental proficiency.

Here are two great questions arising in our feeble-minded institutions of today. One, how far can we take our children mentally without detrimentally effecting their morals? The other, how best can we arouse and strengthen the morals of feeble-minded children, who are not only deprived of brain force, but who are burdened with the sins of their parents?

To say much on this subject and yet not repeat what has already been said by other and abler persons than myself, seems almost impossible. However, let us consider first the question of morals with regard to how far a child

may beneficially be taught. My answer is, we can take a child as far as we please, providing we ourselves have good judgment, as long as we do not make the child unhappy through the knowledge he has gained. And right here comes another important point; if we wish our children to be morally good and to be taught just thus far and no farther, we must employ good conscientious teachers imbued with all the qualities which go to make up true men and women; for in the eyes of these poor, helpless unfortunate little ones "We are Gods."

It is a common saying "Oh, anybody can teach idiots." This is a great mistake: it requires a high grade of skill to teach defective children. Yes, and much more. A person must not only be well educated, but must possess patience and perseverance, and be virtuous.—"Their precepts must be illustrated by example, and the morals shine forth in all their work." Then it is when such are employed that the above question will be practically answered for us. The teacher will know what is best for certain children to learn and for others to leave unlearned. I have in mind a class of rather advanced, high grade feeeble-minded boys. These boys in our school ranked thus: In the world they would rank among the lowest of the low. And so you see, for their own good and for the sake of society, it would have been a sin for them to have left the protection of our institution. Yet these boys, as is often the case in all our institutions, had a desire to go out into the world and, as they said, make their own living. At the time I speak of they were attending school regularly, where they were taught all about the industries of the world, —mining, manufacturing, etc. They had learned the location of many of our cities,—how far they were and in many cases the amount of money necessary to travel there. Of course they were taught other facts as well as these, but do you not see that each one of these facts only tended to make such boys more dissatisfied, made them think and plan how best they might accomplish their ends, regardless of how they obtained the means? In this way, wholly unintentionally, these boys were being taught dissatisfaction, discontentment, underhandedness, and perhaps prevarication and theft: in other words their school training was fast becoming their moral ruination.

Immediately this fact became known, these boys were taken from school and sent to various occupations on the farm, for while it would have been possible for them to have gained more general knowledge by attending school, it was best, more merciful, to leave them ignorant of the things not necessary for their happiness here.

As before stated, patient, persevering, virtuous, reasoning people must be the "Gods" to sit in judgment and decide for these unfortunate children how far they may beneficially be instructed.

The other question,—How best can we teach morals to feeble-minded children? is of equal interest and importance. We say teach morals by example. Yes, but there are exceptions to every rule, and surely in the training of feeble-minded children several are permissible.

In our institutions there is always a class of children who must have something to grasp a little more tangible than examples, precepts, etc., to keep them within our code of morals. And even with these more tangible devices it is almost impossible to keep them up to the standard we are ever aiming

for, especially in the case of "moral imbeciles."

Every institution believes itself to be and tries to be a model institution. In view of this fact I am going to tell you one or two of the means employed in our institution for the purpose of arousing and keeping within our children desires for the best things of life only. First of all, let me say, everything done in this institution is done as a privilege, not a requirement, and it isn't so much the amount of reward as the frequency and certainty of it. Once each week we have what we call "store," which means a room fitted up with all the things so dear to the heart of a child. The children are allowed a certain amount of spending money which they may invest in candy and fruit, or wearing apparel in the form of ties, ribbons, combs, etc. Now a child is supposed to get O. K. coupons from each person with whom he is scheduled to spend any part of the day. The coupons are judiciously given, and it is only when children have been truly good and really deserving that they receive their full remuneration.

Another device or scheme for the promotion of morals is what we call our "Honorable Mention." This means that every employe on the ground is requested to pass in to the office once each week the name of one child who has earned the right of "Honorable Mention." Now this right for the child means that his conduct, etc., has been nearly perfect while with the person who sends in his name. The list of "Honorable Mention Children" is posted once each week on the Bulletin Board, where every child and employe can read it. Now if any one of the employes know one detrimental thing against any one of the children whose names appear on the board it is his duty to place a cross beside the name, which means that the child thereby misses the privileges which "Honorable Mention" signifies.

At the end of the week, all the names which have withstood the criticism of the whole institution are read in Assembly. The children are allowed the honor of standing, which I assure you is no small thing with them; and besides this the "Honorable Mention Children" are given all the little extra privileges possible. "Honorable Mention" has come to be with us a scheme, if you please to call it so, of almost inestimable value.

These are only two of the many ways which we employ to keep these little ones, our sacred charges, up to the standard we so ardently and persistently desire.

Some there may be, however, who will object to these methods, considering them in the light of bribery. The words of an able writer come to me just now in connection with this,—"Our work with the feeble-minded is not so much the 'survival of the fittest' as the fitting of as many as possible to survive." Morals cannot be forced upon such children. Only example, loving-kindness and constant supervision on the part of those in whom this sacred trust is reposed, can arouse, strengthen and perfect the morals of feeble-minded children.

SOME REMARKS ON THE USE OF HYOSCINE HYDROBROMATE IN THE TREATMENT OF THE STATUS EPILEPTICUS.

GEO. B. FADELEY, M. D., FALLS CHURCH, VA.

THE treatment of the condition indicated in the title of this paper is notoriously unsatisfactory. We are far too often compelled to acknowledge the inefficiency of our therapeutic resources in the face of this dreadful malady, and hence, anything which offered a hope of reliability as a specific would be recognized by the profession as a distinct gain. The purpose of this paper is to report, briefly, five cases of the Status Epilepticus treated by the hypodermatic injection of hyoscine hydrobromate, and since careful search of the records in the library of the Surgeon General's office discovers no mention of the procedure, I make bold to suggest to the members of the Association, and to the profession the trial of the drug mentioned in identical and similar conditions. The five cases referred to all occurred at the Virginia Training School for Feeble-Minded Children, Miss Gundry, Proprietor, located at Falls Church, Virginia.

A. R. Urquahart in the *Scottish Medical and Surgical Journal* for April, 1902, admits that the treatment of advanced epilepsy is largely unsatisfactory, and says that the absolute degeneration of the cortical cells and the production of toxins, he believes to be unalterable by present day methods and quoting Gowers he says, "The Status yields seldom to any drugs except chloroform, morphia or hyoscine."

H. C. Wood recommends the use of hyoscyamus in treatment of epilepsy, but urges caution in its use, owing to its depressing effect upon the respiratory centers. Chloroform, morphine and hyoscine, it is true, must be used in these cases with great care, but from my experience in the treatment of patients suffering from the malady under consideration, I am most favorably impressed with hyoscine.

CASE No. I. A. D., female, aged ten years, idiot, subject to true epilepsy. On the night of July 30th, 1900, developed the Status Epilepticus. In former cases having been disappointed in the use of chloroform by inhalation, strong sedatives by mouth and rectum, enemata and nitro glycerine, I resolved at once to administer hypodermatically one-fiftieth grain hyoscine hydrobromate which was done. To our great relief in less than fifteen minutes the convulsions abruptly ceased and the child recovered as from her ordinary attacks.

CASE No. II. M. P., female, aged nineteen, feeble-minded, subject to true epilepsy. On October 28th, 1900, went into the Status Epilepticus. Encouraged by the experience just related, one-fiftieth grain hyoscine hydrobromate was given hypodermatically. In from ten to fifteen minutes the fits suddenly ceased and the patient went into the condition which usually followed her attacks.

CASE No. III. C. B., female, aged seventeen, feeble-minded epileptic, developed Status Epilepticus on March 8th, 1901. The attacks were Jacksonian in character, the entire left side of the body being involved in the con-

vulsions. There was no loss of consciousness. One-fiftieth grain hyoscine hydrobromate was administered hypodermatically, but without effect upon the attacks.

Case No. iv. E. W., female, aged twelve, feeble-minded epileptic, developed Status Epilepticus on November 11th, 1902. In this case also the treatment mentioned above was used, but without appreciable effect.

Case No. v. J. J., female, aged fifteen, idiot, epileptic, developed Status Epilepticus on March 11th, 1903. The administration of the hyoscine hydrobromate hypodermatically, as mentioned above, was followed by almost immediate cessation of the paroxysms and the child recovered as usual. Next day the eruption of measles was discovereed upon the body. The measles ran an uncomplicated course and the recovery was prompt.

Here we have a report of five cases of Status Epilepticus treated with hyoscine hydrobromate hypodermatically with very favorable results in three of the cases. The number of cases observed is small, it is true, but the beneficial effect in most of them was striking. I feel justified in claiming that the cessation of the convulsions was due to the hyoscine. It will be noticed that the dose given is large, but the urgency of the symptoms and the known unresponsiveness of these subjects to medication in ordinary doses is given as a reason for the dosage employed.

In these subjects, bleeding which is advocated by some authorities, is in most instances not to be thought of on account of the extremely low grade of nutrition of the body and the very apparent anemia.

NOTES ON ADOLPH M., 1901-'02.

AGNES M. DILLINGHAM, TEACHER AT THE MINNESOTA SCHOOL FOR FEEBLE-MINDED, FARIBAULT, MINNESOTA.

THE first day Adolph entered our Kindergarten, November 23rd, 1900, he showed the disposition which has been very prominent ever since. He wanted to do and to be in everything that was going on. Not at all timid, even that first day, he joined in the tasting game, allowing his eyes to be blinded for a taste of whatever should come and then bringing another child to the center for the next turn.

And today he carries himself with the "big man" air he was so fond of last year. Then, after putting on his new overcoat, he would strut around, roll his eyes and grin all the way across his broad face, saying, "big man, big man." And now he occasionally walks around with the swaggering air of a street "tough." He is rarely a simple little child, although he does often lose himself in his play.

Self-conscious much of the time, he pushes himself to the front, even though he must displace others to do this; he fusses or even cries if not chosen for every game; and he claims as his own everything and everybody in and out of sight. Humility and refinement are lacking, but the originality,

imagination and persistence he displays compensate to a great extent for these defects. And I shall try to give notes of his doings and sayings which will give a true idea of the good qualities and not exaggerate the bad.

From the first Adolph had a way of claiming everything. In and out of doors it was and is still, "my blocks;" "my pictures;" "my wagon;" "my horse;" and of school company, "my mama," or, "my papa." Indeed, he has insisted so persistently in owning people that Sherman S. and he have come to blows and tears over the matter. Sherman would call the visitor "man," when Adolph would speak up, "no, papa;" or, perhaps Adolph would say, "my Miss McLean," while Sherman said, "all the boys' Miss McLean," but Adolph would insist upon individual ownership until poor Shermie was in tears. Or it might be that Sherman was the one who began by saying, "my Miss McLean," for this habit is not confined to one boy. Then Adolph would say and keep on saying, "all the boys, all the boys;" this to tease Sherman, for he likes to annoy the other boys at times.

Harry S., who is easily teased, is often the object of Adolph's fun. The two boys have been playing with the wagon. Adolph starts to run and keeps just beyond the reach of Harry, who is following, screaming at the top of his voice. This pleases Adolph and he laughs and continues to run. Or we are playing train and Harry is making music on an old water can for the pleasure of the excursionists. Adolph starts after him with a stick and drives him off. Harry in a hot temper runs for dear life, shouting that he will never come back; but Adolph soon leaves chasing him and Harry returns to his old stand, only to be chased off again.

Adolph himself does not cry much, though it takes little to make his a sorrowful looking face. He can't stand much of a fall or bump nor much teasing from other boys. His younger brother once made him cry by repeating over and over some little word in a teasing tone of voice. This spring he has often complained of pains and has cried a little if not permitted to lie down. One day when I laughingly told him he was getting to be a fat, lazy bear, and although I'm sure he does not know what a bear is, he began to laugh, left the couch and went to work. Another day he kept his eyes shut pretending to be asleep for half a minute while I talked and tried to raise him by his hand.

One day last fall he was determined to have a bandage on a scratched finger, so a rag was brought but Sherman caught a smile on my face and soon the table was in laughter at Adolph's expense. He looked a little ashamed for he does not know quite what to make of a joke on himself. He does not seem to be able to meet it with his usual bragging manner.

At one time Adolph's table of children marched in two sections: the "big boys" and the "little boys," as they were called. Adolph was classed with the "little boys," a place he did not like, so he insisted upon marching with the taller children. Finally, as a drastic measure, I called him up before the others, together with several larger boys, one at a time. And each time as we measured Adolph beside a taller boy the children said the other boy was "bigger," Adolph was a "little boy." He went to his seat without a word, and when later I said to him that he was taller than Harry so should sit on the other side instead of the place he had chosen, he moved with alacrity.

Last winter each class had a bag for taking overshoes to and from the kindergarten. Adolph liked to carry this bag and was always quick to get possession of it. The other boys were quite as fond of the bag as he and so we tried to have turns in carrying it. Often, however, he was persistent, holding to it tightly, and stoutly refusing to yield possession. Once when I tried to reason with him that he had had it often he said to me, "Henry have bag one time,"—holding up one finger emphatically—"I have whole bunch o' times."

Another day Walter needed a handkerchief. Adolph had a pocketful. He said he had four, and there were two. So I asked that he give Walter one. He drew from his pocket a narrow strip of cloth which he offered Walter. This was too small, I said, whereupon he proceeded to show just how it could be used. It took determination on a second side before Walter could be accommodated.

Adolph is a typical boy in his fondness for collections. The early part of the year we could always be sure that the box used for storing the children's treasures during school hours would receive a generous supply from him. After pulling a bunch of string, several wads of paper and old suspender straps from his pockets, he would assure us there was more to follow He often clings persistently to the treasures, especially the whips, cans, rags, or bits of glass he finds outdoors. One day this spring he had found a particularly choice piece of wood, and was having the best of times dragging it around by a string he had attached. He came up to me and said in a sweet way, "Take to Kindergarten?" "What?" I said. "Stick," he replied. And when I hesitated he added, "Say, yes; say, yes."

What he finds or makes Adolph treasures carefully, but he has not often shown affection for people, animals or plants. While the other children gather flowers he is enthusiastically playing horse or hunting up materials to carry on other imaginative play. He brought a bottle into Kindergarten one day and when flowers were put into it he carried them around for all to have a smell and wanted them to be on the table beside him. The bottle was the object of interest, and the flowers only in-as-much as they were in the bottle.

One day we noticed a squirrel running along the branches of the trees. Most of the children were as quiet as could be while they watched it with interest, but Adolph ran around calling noisily, "My squirrel! My squirrel! Catch my squirrel!

A very few times Adolph has thrown his arms around me in a burst of childish affection and once he surprised me with a kiss. I had put my head down, as he asked, supposing he wanted to "whisper into my ear" as he had done a few times.

He does not know how to be gentle; even when he tries, as at times with the little girls, his movements are rough. To Oscar, his half-brother, he shows some attachment, but not nearly so much as Oscar shows him. Many a time Oscar has insisted that "Adolph never hit the boys. Harry hit Adolph," when there was trouble between those two.

It is ever so interesting to watch Adolph at play. He is quick to put to use whatever comes his way, and the way he uses and combines materials shows that he has observed. When in outdoor play we made a wall of bricks,

he used sand for mortar, smoothing it over in quite a mason-like way. And it was sand that had been screened, too; for he had found a piece of wire mosquito-netting and sifted the sand through that.

Out at the merry-go-round is a small bar of iron fastened at one end to the central support. This bar Adolph worked at intervals all one play hour, pumping water which was supposed to pour out through a small hole in the hollow column into an old can the boys held below.

The first six weeks of this year Adolph played a horn. At most any time, although more particularly when there was other music, his hands might be seen twisted around each other in an entirely original way,--this was the horn.

In the circle he never followed a suggestion to do the exercises with the other children, for all the while he felt he must play his horn. Fortunately this horn did not always make a sound, as it was used during all songs, even the prayer song; yes, although I did insist that the cornetist in the hall did not play during prayer. A few times he put the horn into his pocket or shut it up in its case. Once he carried it over to the corner, and then every time we passed that corner in marching, he pointed to and spoke of it. A few days during this "horn" period Adolph used a Kindergarten chair as a horn, blowing at a back round or a leg, as it suited his fancy.

At the Christmas Sabbath exercises he was completely taken up with the various instruments of the orchestra. In his characteristic way he imitated the movements of the horn players and violin, also; and he was eager to point out to me the cello lying beneath the piano and to show me how it is played.

Trains are no less interesting to Adolph than to other boys. During the first few months of the year all playthings were lined up for cars, pushed along table or floor with steam furnished by the boy and when the children were in line for marching he would always steam up for playing train. At his request he received a train for Christmas. Later when we were talking over gifts I spoke of his "little train," and he spoke up, "No, big train." When outdoors several of us climbed upon a fallen tree playing we were off for a ride on the cars, Adolph ran the engine. He found paper and sticks, which he crowded into the hollow end of the tree and then using a small bit of wood, struck a match to light the fire.

Imagination serves him in-doors also, and originality is a mark of his work. The occupations which offer large scope for his individuality are what delight him. Clay is one of these. At times when he was allowed his clay only upon condition that he first make the model given the class, he has made what the others did, but as a rule his figures are planned and made altogether by himself. One day the model is a cup with a protrusion for a handle and we are offered a drink. Another day when we are making cylindrical vases for flowers he puts his flowers into baskets having handles. Shovels are common, and once the figure produced is a pig, another time a stove. To be sure we could never have guessed what the models were, but points of resemblance were easily seen after the names were revealed.

Adolph works with a purpose. The forms are not named afterward from the likeness.

Sand is another occupation of which he is very fond, for it allows so much freedom. He has cried for it after he has played at the table just the day before. Drawing he also likes, and this last school month he has begun to draw houses; the first figures that have looked like anything yet made by him. A square is outlined first and a roof with rounding lines is added. The other features of his house are a door, many windows, a long flight of front steps made like a ladder and a chimney with a stream of smoke sometimes as long as the blackboard. Once he put me through a catechism upon the names of his house.

Naturally having such an independent character it is often hard for Adolph to do what is asked of him. When the material does not allow much freedom he does not care for it. He says he does not want to do that work or perhaps he insists that his stomach hurts and he must lie down. If he is cajoled or coerced into the work he does it slowly and without enthusiasm.

Lately he has wanted a short string for his beads, not like Harold desiring two short ones rather than one long string—but only one short. Even the "big boy" suggestion was of no avail in this case. Once when he had a peg-board he put a peg at each corner and turned the tile over calling it a table. The mechanical work of arranging them in rows was not to his liking.

The difficulty of getting Adolph to follow another's idea is met in all work and play. In connection with his horn passion his failure to follow the leader was spoken of. In the morning circle we have different motions with the music such as clapping, rolling or shaking the hands. This was a most favorable time for horn playing and even if he did put the horn aside for another exercise that was not what the leader was doing. If asked he could lead well, but following is not to his mind; a phrase he has used lately reveals him well: "All the boys follow me."

He never yields to a point through reasoning. A few times have I been able to persuade him away from what he wanted to do. He can do the more difficult work of the table. On the days when we have such work the smaller and less capable children are sent to the board or sandtable while the others have their lesson. Then Adolph will stand up determined to do the work he likes better, and there must be a compromise in order to have good feeling; he may go when he gets his sewing done; or he may go first and come back and work. Twice he has yielded absolutely and come and thrown his arms around me asking to be kissed when I patted his head.

Outdoors he likes to play with the wagon, so do the other boys. When he has it and the others want it he offers to let them pull him; yes, he will give them a ride, too. But, oh! it is hard to take his hands altogether off the wagon. He says "Two boys have wagon", offering to let Sylvester help pull. And though two start out, one usually comes back having gained sole possession by fair means or foul. When he must tie his shoes no other must touch the wagon. He counted it a happy thought when it occurred to him to sit in the wagon while tying the shoe.

Adolph's vocabulary has always been limited, very limited compared with the normal child. When he came to school two years ago he spoke very few words intelligibly: it seems, to recall them, hardly more than a dozen,—

no note was made at the time. Ideas he has been quick in grasping, but words have been hard for him. The word "brother" he soon used after coming. He considered it his word. If in a talk or a story the word was mentioned he would say "Oscar, my brother; Adolph, big brother;" and when another Adolph came, he said, "Three brothers." This year he once called Oscar his "sister," the first time he was known to use that word.

About the time Miss Peters, his attendant, went away he first used the word "home." The houses or pictures he saw were, "my home." Likely he had heard that Miss Peters had gone home. Now he uses "house" in speaking of his drawings.

He points to Dr. Baldwin as, "my docker;" although I believe he calls him 'Docker Huxey" when he names him. One day he wanted to give his flower basket to "Docker Warren." He uses many more words and he makes almost complete sentences at times; for example, "Miss White going to have two class," where only the verb is omitted; or "Harry Spure make (the) boys sick. (I will) not go (with) baby." Adolph believed he had caught his "whole bunch o' itch" from Harry who is still called "baby." Another day when I had set the doll on the ground against the tree, he said, "Old tree make you dirty, dolly." Usually, however, he puts fewer words together, using those important for the meaning he wishes to convey. This winter he has used the pronouns "who" and "what" in questions.

Adolph's memory is good. He ran away from Miss Gray's children outdoors so he was not allowed to go out with that table. Afterward he was in the hospital for more than three weeks. When he came back the first day he said, "Go with Miss Gray's table. I never run away," meaning I *will not* run away.

Last year we modelled cardboard dishes for holding the beads and each child pasted a picture upon one dish. This he used and called his own. This year having some different children we did not speak of ownership. Nine months after any note was made of special ownership Adolph happened to receive the dish with the picture he had cut; he held it up for me to see telling that it was his picture.

Adolph's hand-work is fair. As was said before he is particularly fond of free-work. In clay, drawing, and-so-forth, he gives the general form and those details which appeal to children,—as smoke and door knobs in house-making; the legs of a stove, but the work is done rapidly and it is not finished work. Windows are drawn with lines that cross each other like the figure for "Tit Tat Toe" game. Clay-models are never worked over and made smooth. Cutting is not exact, although some has been quite nearly so.

Color-work is difficult for him. It seems as if there is a defect in color sight, for he so often confuses green and red as well as those colors that are more alike: yellow and orange, blue and violet. He confuses not only the names, but the different balls in trying to match them.

Form and number are easier. In common talk he now uses the numeral "four" correctly. In counting eleven he omits seven and he does not count one number to an object above five. Beads he has strung through the "three" patterns with two kinds: that is 1+1, 2+2, 3+3, 3+1, 3+2. When given three kinds of beads he does not follow the pattern out exactly. He uses his right

hand chiefly. He follows patterns in sewing cards well, at times taking up a new figure and grasping the idea immediately.

The advance he has made in talking and work this year is easy to see. This is due in large part to his increasing age; but character growth is slow and if there has been improvement it is scarcely perceptible. I believe he has times of hungering for love and perhaps with more of that wisely administered a somewhat altruistic spirit may be developed in this seven year old boy.

WHAT CAN TEACHERS OF NORMAL CHILDREN LEARN FROM THE TEACHERS OF DEFECTIVES?*

MARTIN W. BARR, M. D.,

CHIEF PHYSICIAN, PENNSYLVANIA TRAINING SCHOOL FOR FEEBLE-MINDED CHILDREN, ELWYN, PENNSYLVANIA.

BRIEFLY to enumerate the various points that teachers of normal may gain from teachers of defective children I should say:

FIRST:—How to study the child:

(*a*) Through physical characteristics.

(*b*) Through habits, special idiosyncrasies, and their effect.

(*c*) Through temperament; whether traceable to heredity or environment, or both.

SECOND:—How to discriminate and place in the several groups of normal, backward and defective.

THIRD:—A knowledge of possibilities and of limitations in the several grades of normal, backward and defective.

FOURTH:—To individualize standards for the day's work; requiring not so rigidly that each shall accomplish the same task, as that each shall exercise his or her capacity to its full measure in the given task. In other words, to require the best the child can do and to demand no more.

In this connection also the teacher of the abnormal learns to note fatigue signs, and to discriminate between them and the play-off of mere trifling, of naughtiness, or of pure indolence.

In fact, necessity has given the teachers of defectives such constant practice in this individualizing that to one of long experience, insight becomes intuitive.

By means of it the teacher is not only enabled to detect what is within, but to assist the child also to detect and to reveal it by reproduction, and to seek stimulus in healthful competition with his fellows, so that he develops

*Read before the Pennsylvnia State Educational Association, Norristown. Pa., March 10 1904.

unconsciously through activities that, alternately assisted and independent, act naturally and without strain, co-ördinating to induce stability of purpose and of habit.

But, may not the teachers of normal children do this also? True, they may, but can they? When the attention is constantly impelled and directed toward promoting and graduating a mass, is not this condition of touch between individuals the exception rather than the rule? And do not habits engendered by such daily practice become more those of a general directing force than those of a trainer or a promoter of physical and mental culture? There is neither time nor opportunity to cultivate both, and, as I understand it, a large proportion of teachers in public schools find that not only their reputation, but their very living depends upon ability to move the mass and to cover ground measured out by a system. So many shoved on to make room for so many more; so many books gone through in order to take up so many more. There is no time for noting assimilation or its absence; individualization is lost in the imperative necessity for generalization. The masses must move at whatever it cost. It is a great system! No greater we claim in any country, but that many children are its victims, we of the medical profession have good cause to know. It is equally true that many good teachers are often sacrificed and absolutely forced away from that individualization which they themselves hold to be the highest art in their profession. It is in this very essential point of getting in touch that the teacher of the abnormal has a decided advantage over her sister teacher.

Having seen how the pressure of necessity and of circumstance impels one set of teachers toward and the other away from the study of the child, we shall now by comparing, find the methods used by each in awakening and developing mental power to be also diverse. Briefly stated, one begins with physical activities inducing co-ördination and exhilaration physical and mental, and gives to study—its periods of rest and recuperation—a zest in preparing for future preconceived experimentation. The other begins with mental activities, inducing often in-cördination and exhaustion both physical and mental, and seeks rest and recuperation only, in physical activities.

The teacher in schools for normal children in this particular also, is hampered by a system; one modified in some slight measure by the partial introduction of manual training, but with comparatively few exceptions, her chief, often her only resource is the ubiquitous book. In fact, it has not been so many years since the schools seemed to have been created for the express benefit of publishers and book dealers. Fine they are one must admit. Too much cannot be said in praise of the modern school book, but at best, it can but give knowledge second hand; knowledge, moreover, that must be paid for in a corresponding exhaustion in lieu of a building up of mental energy. This the teacher of the feeble and the backward knows she cannot afford to risk, or to lose. She will tell you, moreover, that all knowledge is not bound up in books; that an accumulation of facts, making a mere storehouse of the mind may even prove burdensome and worse than useless unless built into the mental structure by applying and experimenting.

The futility of compelling attention for long periods by the mere superimposition of will-power has been satisfactorily demonstrated to her, nor would

she—save in exceptional cases of discipline—do it if she could, feeling that with many, the result would be mere automatism or more frequently deception.

Conditions of apathy or of excitability in various stages have indicated to her the necessity of winning and holding attention by means of varied occupations that shall either arouse or repress the nervous nature as the case may demand, yet tending to stimulate in both the creative faculty.

Accepting the natural method demonstrated by the child himself, he is encouraged to give expression to ideas which he has already conceived by means of construction and picturing.

The home and outer environment, the gaining of food, shelter and clothing, and the observing of animal and vegetable life, have already given him many experiences, and the teacher invites him to recount them with divers materials and in many ways, accepting whatever is given however crude for she is well assured that the working hand will strengthen, not exhaust the working brain.

In proportion as his store of objects in clay or paper, wood or straw increases, does self-hood increase, and in the happiness of accomplishment and of growing capacity, the child becomes gradually aware of the truth "not what I have, but what I do is my kingdom."

From the drawing of the object, the step is short to drawing its name. Signs associated with things are never entirely abstract, and reading and writing begun as a part of hand occupation is inseparably linked with it, and becomes in time a source of preparation for added achievements. For each stage of development has its luring and enticing occupations. The knitting, netting, weaving, card-board, and wood-construction in endless variety, not to mention the many industries of house, farm and garden which open means of development to many to whom books are, and will ever be, but a dead language.

This brings us to a knowledge of possibilities and limitations in the several grades of defect, and how to discriminate and assign so that each may go to his own place.

Thus while subjected to an atmosphere of culture common to all, conducing to good morals, good manners and good taste—often during that time developing some talent latent and unsuspected—the child is taught and led to pursue some one of the occupations in which experience has proven many of his class have found a useful and contented existence.

Here is another point upon which our teacher will enlighten you. For she may look around your school-room and designate children who can never learn to read or write, notwithstanding all the vital energy you have expended upon them. She will tell you also just the occupations in which they can attain any efficiency. For example, she will say: "This one is a low-grade imbecile; most probably you have not been able to teach him anything. You may *possibly* have taught him to read and write a few words, but they will never be of any use to him, and doubtless next week he will have forgotten them. He may learn to knit or weave, or he may help you around the house, working under direction—but don't hope to make a responsible servant of him. That he will never be."

Of another of the same characteristics she may say: "He will help you and serve you faithfully, and just as faithfully will he obey a villian. For a mere beast of burden he follows where he is led. He has no will-power and is simply the slave of a higher intelligence."

"That girl who has learned to read, write and cypher a little, you say in five years, I should judge to be an imbecile of middle-grade, who has reached her mental limit with books and will doubtless never care to use them. She ought to have been able in that time to learn to sew, to knit, to weave—might have become expert in basketry, or may yet be very efficient in household service, but she must be always carefully guarded and protected, for she, too, has no will-power and will prove an easy victim of the vicious."

"That boy who looks so bright and yet does so little, lacks application; has ability, but trifles over first one thing and then another. He is a high-grade imbecile; doubtless he has reached his limit about the intermediate school class sometime since, and school exercises after that have tended to stultify and to deaden mental processes. Had he had manual and physical training from kindergarten up, he might now have been expert in type-writing, or type-setting, or cabinet-work, an interested and useful mechanic and possibly further advanced mentally than he is now. Certainly more interested in books, for he would seek them with a definite aim."

There is hardly any teacher who is not called to deal with the leaders of mischief. Take, for example, one who has no conception of the rights of others. If there are two ways, he will choose the crooked always, rather than the straightforward. Things disappear, and can always be traced to him, and yet he is an attractive child, one of the brightest in his class. One cannot believe he means to be naughty. The teacher recognizes the type from the description—a moral imbecile. In a certain sense he does not mean to do wrong; he simply cannot help it. He is born without the moral sense, and notwithstanding all his mental equipment, he is a ship at sea, rudderless at the mercy of every nerve storm. He is powerless to resist any temptation that assails. A disturber of the peace of any school-room or of any community will he be always, and mental acquirements will all be used to that end; therefore for him, the fewer the better. Permanent sequestration, constant, congenial occupation under the most cheerful conditions possible, is the ultimate safe-guard for him and for others.

There are others in the schools who are not of these types, yet are different from normal children; nervous under compulsion, easily confused in ordinary recitation and unable to keep up with the others. The backward children just on the border-line who may easily be precipitated into defect by mismanagement. Examinations will do it, or a multiplicity of studies. For these, as for the others we have been considering, the panacea is found in making haste slowly. Let us have fewer books and more music—both vocal and instrumental—more hand-work and physical exercises, remembering that hurry and worry are the two enemies of culture, and culture is what is most necessary to the period of immature growth. Knowledge is gained practically through growing experiences, and knowledge gained thus first-hand, is best for them now; facts relating to people and events they may glean later, or dispense with altogether. We cannot grasp everything in a limited time and

if something must be dropped out, or left behind, let it be the system rather than the child.

Give the children time to grow as nature intends without getting over early solemnized into ill-conditioned men and women. It is a recognized fact that the longer the period of maturity is deferred, the later will be the period of decay, and the stronger and healthier will be the characteristics transmitted to later generations.

Overcrowded school courses and exciting examinations, nerve-strain and push—the making haste to grow, has much to do therefore with the propagation of poor stock, and the consequent retarding of race-culture. This pressure of the strenuous life is a feature which a teacher in the public schools must hopelessly combat, while the teacher of defectives, dealing with a perpetual childhood, feels that she has time and opportunity to instill manliness into her boys and womanliness into her girls, without fear of their be coming premature "grown-ups" under her hand. In this, as in many things, methods and environment contribute to ameliorate her arduous task and to aid her in the study of the points we have enumerated. She has every opportunity of studying the child, his habits, temperament, and early history, aided by the diagnosis of physicians, and the records of former instructors, which are all open to her. Not only that, but if resident in a training school, where all engaged in the work live more or less with the children and with one another, much is gained by interchange. In dormitory and dining-rooms, school-rooms, work-shops, and play-grounds, the child is known; in his training, moral, industrial, intellectual and physical, many are concerned and all are interested, so that her opportunities are greater than are those whose conditions are more circumscribed. This, a seeming paradox is nevertheless true—that is compared with teachers in public schools, whose opportunities for study and approach are too often bounded by school-room walls. The appointment of medical inspectors, now becoming general, will naturally aid these in gaining an insight into family history of pupils and the influences of heredity upon habit and temperament if they have access to records. But to acquire facility in detecting signs of deterioration or of defect as well as a knowledge of the different grades of imbecility and the limit of capacity in each, requires intercourse with defectives in mass and conference with experts in training.

A few weeks thus employed will be an open sesame to many, enabling them to see more clearly how to avoid nerve-strain in themselves and their pupils and thus to maintain an atmosphere most conducive to progress.

The student of psychology studying for an examination would find an ounce of such practice worth a pound of theory.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. VIII DECEMBER, 1903-MARCH, 1904 No. 2-3

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
ALEXANDER JOHNSON, - - - - Ft. Wayne, Ind.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Postoffice at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

The "Cure" of Feeble-Mindedness.—Occasionally, a writer on the training of the Feeble-Minded, uses the term "cure" as the object and actual result, in some cases, of such training. The use of this term, while correct in the sense of treatment, is unfortunate because misleading to the public, by whom it is interpreted to mean a restoration to a normal condition, an achievement entirely impossible in the case of a feeble-minded child. The condition is not one of deviation from a state of normal health, caused by some temporary excitation or depression, that having passed, leaves the functional activities of the child in a healthy and normal condition.

Psycho-Asthenia is a permanent, though not necessarily complete, arrest of mental development. In the latter case it is hopeless idiocy. The condition of the child might be compared to that of an imperfectly constructed locomotive, so deficient in steaming qualities, or whose rough bearings develop so much friction, that it never will be of any value to haul loads. The engineer may improve the conditions and if it can be made to run at all, the

slow inefficient operation of the machinery may by this very process reduce the friction and in time the engine may be able to haul very light loads, but the construction is so radically wrong that more than this never can be accomplished.

So with the feeble-minded child, the organization is permanently defective. Imperfect brain-cells or imperfect nerve-cells or both, are a permanent handicap, but improved nutrition and stimulation of the sluggish functions may result in quickened physiological activities, and this process of functioning itself lessens the resistance to repeated activities, and consequently, the responsiveness to both external influences and volitional impulses. This is the process of development expressed in the simplest terms, but the limitations are absolute and permanent. It must be remembered that the normal child possesses a spontaneity which the defective child does not possess. The rapidity with which sensory impressions are received by the normal child during his first seven years, gives him an advantage in the store house of brain impressions from which ideation and knowledge are formed, that never can be overcome by the defective child.

Development within limitation may be accomplished, but the degree of such development depends upon the degree of original handicap. Slow development, if constant, often characterizes eventual development of strong efficient mentality and character, but this must not be confused with arrested development.

The Training School is the name of an excellent local monthly published by the New Jersey Training School for Feeble-Minded Children at Vineland, New Jersey.

A School for Feeble-Minded has been opened at Watertown, Wisconsin, under the auspices of the German Lutheran church. Prof. W. K. Weissbrodt is in charge. The school opened in April with seven pupils followed by eight more within a few days. Prof. Weissbrodt has taken hold of the work with an intelligence and enthusiasm that give abundant promise of success.

We are glad to print the following announcement as the first definite promise of Mr. Johnstone's long-cherished hope of inaugurating a training school for teachers for the feeble-minded:

A Summer School for Teachers

The first session of the Summer School for teachers to better fit them to teach backward children in the special classes of the public schools, will convene at the New Jersey Training School at Vineland, New Jersey, July 11th, and continue until August 20th.

The program will be based upon the following plan:—

1. One week to the general subject of feeble-minded and backward children.

2. One week to causes, classification, etc.

3. One week to the sociological side of the question and the methods of caring for this class.

4. Three weeks to methods of training, discipline, etc.

A course in reading will be required, the literature being provided by the School.

It is proposed to limit the course to six weeks and admit but a small number of pupils to this first session.

There will be lectures, talks, etc., each school day and one evening each week by the Superintendent or some member of our corps. One period each week will also be given to questions and discussion of matters previously gone over.

The members of the Teacher's Class will live here at the School during the entire time and have every possible opportunity to study the children out of school hours. Those who have had an opportunity to become familiar with the home life of their public school pupils will appreciate the advantages of this arrangement.

At the end of the session an examination will be held and a certificate, duly authorized by our Board of Directors, will be granted to those who pass.

A fee of twenty-five dollars, payable in advance, will be charged. This also includes board at the school.

The conditions of admission are:

1. At least one year's experience in teaching.

2. A letter from the Principal or Superintendent under whom the applicant last taught.

(This is made necessary by the number of tentative applications already in.)

The Journal comes out in its new dress with this issue, the design being suggested by Miss Alberta Herrick, teacher in the Minnesota school for Feeble-Minded. The Egyptian symbols will be easily interpreted. The winged globe, typical of divine protection; the life giving waters of the Nile—the lotus, typical of the new life—all suggestive of the character and purposes of Institutions for the Feeble-Minded.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. VIII JUNE, 1904 No. 4

ORIGINAL ARTICLES.

PRESIDENT'S ADDRESS

DELIVERED AT THE TWENTY-EIGHTH ANNUAL SESSION

OF THE

ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS

FOR

IDIOTIC AND FEEBLE-MINDED PERSONS

HELD AT FARIBAULT, MINNESOTA, JUNE 23-25, 1904.

E. R. JOHNSTONE, VINELAND, N. J.

LADIES AND GENTLEMEN, MEMBERS OF THE ASSOCIATION:—

I wish to thank you heartily for the great honor you have conferred upon me by making me the President of your Association. I feel it all the more deeply because I am not a physician, and this gathering is named an Association of Medical Officers.

Your kindness in this matter but goes to show that the spirit of the Great Physician is in and thruout the work for the feeble-minded, and therefore you give without partiality, honor to all who shall use their best endeavors to forward the cause lying so near the hearts of all of us.

It is with diffidence that I present my address to you, feeling that I have but little to offer that is new, and recognizing the fact that most of you have been much longer in the work than I. There are, however, some things that are so pertinent to the cause that they will bear repeating, and then, perhaps as much as anything else, this Association must stand as the central bureau from which must emanate information so greatly needed concerning the feeble-minded. Thruout the history of the work, this idea appears: at times dominating all others, and again as a strong undercurrent, but ever present. Separated as we are by thousands of miles, and coming together but once a year, we find it hard, as an Association, to disseminate the knowledge as widely as we would wish, but as individuals bound together in a common cause, we have large local opportunities. While I would not be understood as an advocate of "rushing into print" I do feel that it is a duty we owe to society

to keep our doings constantly before the public. The magazines and many of the better class of newspapers will give space to such information of a general sociological character, and it is only by taking advantage of these opportunities and recognizing the general ignorance on the subject that we can awaken the public to the needs of the feeble-minded, and the others of the great family of neurotics.

The interest is growing. The medical societies thruout the country, the Conference of Charities and Corrections and the National Educational Association are all doing their share, but it is to our Association and its members individually that the world looks for definite, expert information.

We must lay before them our aims and our results. We must work in harmony with every movement of a social as well as of a medical or educational character, for among our inmates we find types that point toward the road which leads to the solution of pathological, psychological and sociological problems.

We dare not work in a corner—we dare not be too busy with the routine of the day. We must make the citizens of our states acquainted with our doings. They must be, in-so-far as possible, familiar with what goes on in our institutions, and have facts, not merely hazy ideas, in order that we may help the cause and successfully combat the criticism of disgruntled employes, parents who fancy their children abused and quacks who make wonderful cures, transforming idiots into geniuses, etc., for these people invariably "rush into print."

Our JOURNAL is a valuable publication, and I should be glad to see some action taken at this meeting leading to its wider distribution.

The various steps taken during the last hundred years have been so often outlined that I need not speak of them here. On every hand further progress is evident. New institutions are being established each year. New buildings are being added in the established institutions. Pennsylvania has been taking giant strides and will establish a third great institution this year. A village for epileptics is under consideration in Virginia, and so the movement is noticeable on all sides. The outlook is brighter than ever before, and now while the iron is hot we must strike and strike hard and often, if we shall weld together the interests centering in our work.

One of the significant facts is that in those states where there are already established schools for the feeble-minded more rapid steps are taken than in those having none—thus showing the good influence of the schools themselves.

Our Association and our institutions have a number of serious problems constantly presented to them, and to the solution of these problems we must give our best endeavors and call to our aid the hardest workers, the deepest thinkers, the most careful students and the strongest men and women in political and social life.

Our great aim is to eliminate this class, and in order to do this we must of necessity consider the elimination of the neurotic, blind, deaf, and consumptives, tramps, paupers, petty criminals, prostitutes, etc., as well as the hereditary insane, epileptics and imbeciles.

This aim is the same as it was in the days of Egypt's greatest civilization, and Sparta's glory, and probably for many generations to come there will be

striving in the same direction.

Nature is kind to this class. They really survive conditions which we should expect to cause a quick wiping out of the stock, but many have physical powers out of all proportion to their mental condition. The power and desire for procreation is strong and of all of the human weaknesses which go to cause the dying-out of a race physically, this almost seems to be the least important, for families of this class are notoriously large.

Many plans for elimination have been proposed. About a year ago one of the large dailies of New York printed serious editorials and communications advocating a painless death. But who was to decide where to stop? How was the plan to be reconciled to present day ideas of humanity and Christianity? The whole thing caused but a temporary flutter and died out.

Unsexing has been suggested and many strong arguments brought in its favor, but as yet the public knows too little of advantages of the operation and of the social dangers from this class, and so will not agree to the idea.

There is, however, one method of elimination upon which we may all agree. It is easier for people to understand,—and—even only partially understanding it,—they will agree to it. That is permanent custodial care. It is slow, costly, requires infinite patience, watchfulness and constant urging, but it is certain if followed out. It will appeal to the great public who stand back of us—it shocks no one's ideas of propriety, humanity and Christianity.

Our great hope lies in preaching permanent custody again and again, and we shall probably go thru the three stages which fall to virtue as well as vice, and the world will "first pity, then endure, and finally embrace,"—our ideas.

To education we offer more perhaps than to anything excepting society at large.

It is only of late years that the public schools have begun to realize how much we have to offer them. For the knowledge of much that now forms a regular part of the curriculum we are directly or indirectly responsible. Manual training, physical culture, nature study and child study were carried on in the schools for defectives for many years before the public school men realized not only their value, but their necessity for correct and effective training, and of late there has been taken a step still further in advance, and attention is being given the backward child in the public school,—the child who with individual training, sanitary surroundings and proper environment will advance to take his proper place among normal children, but who neglected, subjected to disease and ignorance will fall an easy prey to degenerative influences and become in fact feeble-minded.

Medical examination of all public school children is reaching this class, but what is to be done with a child who at the age of twelve has the drawback corrected,—adenoids removed, glasses given or defective hearing remedied—if he knows no more than the child of six or seven. For him there is but little hope if he cannot have special instruction for a while.

We must encourge these movements—medical inspection and the establishment of special classes, or as they are called in Germany "hüeftschülen" or "help-schools." Here euphemy is of great value, for parents are quick to take offense.

I need say but little to this Association on this subject. You know too well the advantages of permanent custodial care.

Every effort must be made to get these defectives out of society, where they are a constant burden; from the families they are constantly dragging down and whose stock they are weakening; from the almshouses from most of which they may go out when they please, spreading the taint, and often bringing back newborn or soon-to-be-born babies worse than themselves; from the children's homes, where they are as much out of place as in their families, and from the public schools, where at last their presence is being more intelligently recognized, and where the really feeble-minded child has no place. Indeed, they must be removed from every place from which they might at any time return to society,—and be put in suitable institutions from which they shall never depart.

This is our problem—to be solved by persuasion if possible, by law, if necessary. Parents will call it cruel; taxpayers, expensive, but we must prove to both of them that it is really cheaper to hire a watchman and put up safety gates along the railway line than to maintain an ambulance, a hospital and a corp of physicians to care for those injured while crossing the tracks,—perhaps, even, we may in time convince them of the value of raising the grade of the railroad,—but that is in the mind of those who believe in unsexing. Therefore, for society as a whole, if they will but let us we shall—even tho it be in the far future—rid them of this class. We shall lessen crime and the costs of courts and prisons—we shall decrease pauperism and encourage a truer charity—we shall diminish inebriety, too often the result of weakened will and judgment, as well as the cause of it. Our houses of refuge, hospitals for the insane, villages for the epileptics, and almshouses, will no longer be crowded because of the ignorance and inability of the incapables, and the stock of humanity shall grow stronger and healthier.

Did you think I said millenium? I believe in it,—because it seems far away is no reason for giving up the fight for it, and surely we who see most clearly the evils that prevent its coming must strive the harder, that many generations hence our work shall have the approval of posterity.

So much for what our work offers society at large. To religion we offer a wider and clearer idea of what charity really means—the raising up of those who are lowest: the combination of what is most thoughtful with what is most religious, "the strength of the strong and the wisdom of the wise ministering thru God's own laws to help the weak and the foolish."

To the State we offer an intimate knowledge of the fruits of the violation of its laws. We ask its co-operation where ignorant opposition menaces the social body. We, who know, offer suggestions for the prevention and quarantine of this social disease, which insinuates itself into all classes of its citizenship. We ask for laws which in no uncertain way shall put this class into permanent custody and prevent the marriage and propagation of defectives.

To medicine we offer our institutions as laboratories. Here we have a host of pathological conditions which may be studied under the most advantageous circumstances. The neurologist finds here a field almost second to none for his study. The study of the etiology of feeble-mindedness is but in

its infancy, and as we "thread its devious paths" great vistas open before us, showing even more clearly the solution of many of the problems of life. For many years the thoughtful physician has availed himself of these opportunities, realizing more and more the value of the knowledge of the abnormal in the treatment of the normal.

I hope to see soon the establishment in some one of our great institutions of a pathological laboratory, which shall receive from all of our schools material to be carefully studied and reported upon, to the advancement of our knowledge and work. It has been talked of for many years. Is not the time ripe now to take it up? We have among our number superintendents who stand high in the ranks of neurologists and pathologists. Where better than with them? It would seem that some young man might be found who as a member of the staff of one of the larger institutions could give sufficient time to this work if we shall all contribute our share,—sending only what we really believe is worthy the study and time of such a man. Time goes rapidly, and it would be but a few years until we as an Association might receive information of inestimable value to the cause.

More careful examinations of the public school children are being held constantly, and on every hand it is found that from two to four per cent of the primary scholars need special treatment and instruction, and that under it some of them may regain their places with children of their own age.

But this examination is bringing to light many other cases who are truly feeble-minded and for them our institutions must open their doors. Many defectives never get into the public schools or at best remain but a few days. These are, particularly, the deaf and blind or the idiotic. But it is those of the imbecile and feeble-minded classes who need weeding out and the influence of our Association and its individual members must be exerted strongly, not only to help single them out, but to take them right away from the public school and give them not only the training they may receive, but the custody they require.

As we offer a pathological laboratory to the physician so do we offer a psychological laboratory to the child student and the educator. The philologist would find much of value in the evolution of the primitive language of these children, and the ethnologist might see much to interest him even in the original designs of basketry which often closely approximate those of the Indians.

As has been said, our children are, so to speak, under a microscope. Their mental processes are so slow that the careful student finds the solution for many acts which the rapid brain processes of the normal child prevent his understanding.

But few of our institutions are without their staff of consulting physicans. I plead for a staff of psychologists also, and thus we may hope to give to education as we give to medicine, and like the bread upon the waters, it will return to us, bringing like the good seed in good ground, even an hundred fold.

And now,—the child. During the past thirty-five years great changes have taken place in education. Girls have been admitted to the schools of all grades. The kindergarten has become a fact, schooling not only little

children, but mothers as well. Evening schools, special classes have been formed, until, as Earl Barnes says: "It would be literally true to say that to-day a child could begin school, in a state like California, when two and a half years old; and pass on thru kindergarten, primary, elementary, high-school and university courses which would occupy him until he died of old age, and all the time he would be in schools supported and directed by the State." He might have added: "Here, too, the defectives receive all of the education and training of which they are capable."

Here again our Association must take a bold stand and demand for the feeble-minded the education to which every child in the union is entitled—whatsoever is best fitted for it.

Training is not all, however. Our defective child gets at our hands much more. He is not only ignorant beyond complete training—he is diseased beyond cure, and often bad beyond reformation. In society his life is a failure. He must be cared for, fed and clothed, prevented from interfering with his neighbors, and from procreating his kind—the degeneracy must cease *here*. We offer such a child play, work, comfort, opportunity and happiness, to make a true home until he is called to that higher one in which there is no weakness and inability, and as the modern surgeon, without the letting of blood, draws the distorted and withered limb into its place to grow as strong and useful as it may, so here the kindly teacher, without tears or sorrow or pain, shall draw the darkened mind from its deep place of hiding, to feel and understand the stimulation of nature's beauties and treasures, and the love and sympathy of human hearts.

From my heart I thank you for the honor of presiding at the meeting of such an Association, and I thank God that he has seen fit to place me in the ranks of those who are, I truly believe, doing a work which in the great cause of humanity has no superior.

IMBECILITY AND TUBERCULOSIS

C. H. HENNINGER, M. D., POLK, PENNSYLVANIA

THAT tuberculosis is often given in the family history of imbeciles is a fact long recognized and that it is often the only cause we can find is undisputed. The means of its production is not so clear, but it is safe to say that the debility the disease causes in the parent is one of the most important factors.

We know that poisonous substances taken by the mother during gestation will have a deleterious effect on the foetus, especially on the nervous system.

Prof. Maragliano of Genoa, Italy, states that "changes caused by the tuberculous infection in a tissue of an organism, and in the organism in general, are due to the poisons secreted by the bacilli when they are biologically active and to the poisons contained in the bodies of the bacilli. We have extracted these secretions of the bacilli known as the toxines and found that

they had a disturbing action upon the nervous system, especially upon this part governing the secretory mechanism and upon the nerve terminals.

The poisons contained in the bodies of the bacilli known as proteins have an inflammatory and destructive action due to the necrotic acid of De Schweinitz and Dorset, and have a disturbing action on the vasomotor innervation, on the trophic nerves and their terminal centers. Injected beneath the skin they cause inflammation with purulent fibrinous exudation and bring about necrosis of the tissue. Injected into the lungs they create a foci of broncho pneumonia. When brought in contact with the meninges and peritoneum they set up inflammation."

Thus you see we have poisons generated in tuberculous parents sufficient to influence the development of the foetus and must be regarded as a potent factor in the production of degenerates. If you could eliminate this fact you would also prove that alcohol and all other poisons have no bad effect. But this disease not only provides a poison but deprives the child of its proper nourishment, two factors sufficient in themselves to cause imbecility.

The history of tuberculosis so frequently given in the epileptic would indicate consumption to be the cause, indirectly, of epilepsy. The mother suffering from tuberculosis, weak and nervous, the child inheriting a nervous system, the vulnerability of which is such that the common convulsions of childhood, or any slight injury, may develop into epilepsy.

I have in mind a child whose parents I have known for years. No history of insanity, imbecility or alcoholism, the parents of a high degree of intelligence, the mother has tuberculosis and was quite feeble during gestation. The child is an imbecile of the Mongol type and so often do we find this type the subject of tuberculosis, and giving the family history of the same, that in this type at least tuberculosis must be considered the most important cause.

In the examination of the children admitted to the State Institution at Polk, Pennsylvania, I found the history of tuberculosis in a large percentage of the cases, and when we consider that the histories we get are also defective, and in a great number of the cases the cause is unknown, and also that tuberculosis is often denied, and often exists without the parents' knowledge, you can readily see that the actual percentage of cases where tuberculosis may be the cause is much larger.

In our institution tuberculosis is the cause of over one-third of the deaths and autopsies show lesions in a larger percentage. Dr. Shuttleworth states, "Tuberculosis accounts for from fifty to seventy-five per cent of the mortality of Institutions for Imbeciles."

Is tuberculosis on the increase in our Institutions?

When we take into account all the factors in the production of tuberculosis, that is, the presence of the bacilli in sufficient quantities, a suitable soil for their development, which is found in many of our children, that tuberculosis is a house-disease and that the mortality from this disease is large, it seems to me that we must consider this question a serious one and try to classify and arrange for the care of at least our most dangerous patients in separate buildings.

The object of this paper is not to prove that tuberculosis is a great factor in the production of imbecility or that tuberculosis is greatly on the increase

in our institutions, but is a plea for a separate building, or buildings for the care of our patients where they could receive all the advantages we now know for their treatment, and where all our attendants, children and physicians would not be exposed.

Having been daily brought in contact with this class of patients for the past few years, caring for them in our hospital and in the cottages, I am convinced that in this line we have not reached the degree of perfection that we should, or have reached in other departments of our work. I wish to quote from an article written by Dr. Flick, of Philadelphia, on "House Infection of Tuberculosis."

"Consumption may be termed a house-disease. Without the house in could not exist. It depends upon the house for its implantation and propagation and for the evolution of all its phenomena. The house is the place where tubercle bacillus lies dormant in wait for its new host and is the place where the new host gets its implantation. It is the place where the tuberculous subject gradually becomes a consumptive and it is the place where the consumptives dies. An inclosure of some kind is so necessary for the conveyance of this disease from one person to another that contagion is impractical without it. The house is the depository of the tubercle bacillus outside of its host. Were it not for the house the tubercle bacillus would soon have to perish from the earth. It could not be preserved: for sunlight, air and water are its natural enemies."

Tuberculosis is not a highly contagious disease and with proper and and reasonable care, in a suitable building, these unfortunate children could be cared for to their advantage and without danger to others.

In the construction of such a building we must never lose sight of its object, the care and treatment of our patients. Provision must be made for plenty of air-space and perfect ventilation, the admission of sunlight and facilities for outdoor exercise in all kinds of weather. The most advantageous position for such a building would be in an open space, sufficiently near a grove to admit of all the advantages of outdoor life in the woods. However, where such a location is undesirable, on account of our present heating and lighting facilities, there is no serious objection to having such a building located near our present group.

This building should be constructed to suit the needs and means of each Institution. In its construction a few items of vital importance should always be considered, that is, the building should be surrounded by a porch, covered on at least two sides, allowing for outdoor life for those patients who are confined to chairs, and as the floor should never be swept, but should be wiped frequently with a damp cloth, tile flooring would be most suitable.

I am pleased to report that such a building will soon be constructed at Polk and hope that the future care of the tuberculous patients will receive your earnest consideration.

DISCUSSION

Dr. Mogridge: Mr. Chairman, in listening to the paper last read in regard to consumption, it occurred to me that we had in determining the causation of the feeble-minded condition, laid too much stress in the past upon what we have always supposed were the main causes in producing feeble-mindedness in children. I believe the ratio of feeble-minded is practically the same in each of the states of the Union, that is so far as my observation and investigation have gone. And there isn't very much difference in the ratio in this country and the older countries. It used to be thought, and Norway and England especially were used as illustrations, that the drink habit was responible for I don't know how large a percentage of feeble-mindedness, but it was something like fifty or sixty or seventy per cent. But when we find that in Iowa where the drink habit is almost as low as it can be possibly and still we have the same proportion, it would seem reasonable to conclude that the drink habit is not responsible for very much feeble-mindedness. Then we had the idea that consanguinity, was a cause, that the marriage of cousins was sure to produce feeble-mindedness. We don't find it to be so. But I fully believe that consumption in the ancestry is more likely to do harm,—mental harm, than any other one factor, which the human race is subject to, simply for the reason that it will so lower the vitality of the family that there is bound to be in such a delicate organism as the brain, some ill result from such ancestry. And then if you take the effect of consanguinity and add it to that we may get feeble-minded children. Mr. Chairman, I believe that the more we investigate along the lines of tuberculosis,—consumption, the more we shall be, perhaps, startled at the things which may appear to us not as absolute facts, but which may be demonstrable.

In regard to death from tuberculosis in institutions. It is true we have in the older institutions, and especially where there are custodial cases,—a great accumulation of them,—we have a large percentage of deaths from tuberculosis. Amongst the school children we have very few deaths from tuberculosis. The custodial children are of low habit of body, poor resisting power, and they are usually crowded into buildings, the walls of which are possibly contaminated with and stocked with the germs of tuberculosis. This is true of Glenwood, I know. We have to do the best we can with the means at hand. We may take the matter before our legislatures. We ask for buildings and we get them sometimes, and sometimes we do not. While we may know ourselves that we ought to have better buildings, we cannot always get what we would like to have. I think, if we were able to follow the suggestions of the paper in regard to the day-time life for our lower grades, and could give them a larger air space, and greater individual attention, we probably should not have so high a death rate. I think some of it is our own fault or the fault of the conditions under which we labor.

Dr. Wilmarth: It is difficult to say how far tuberculosis may be the cause of feeble-mindedness. And it is difficult to say how far tuberculosis is due to another cause touched upon by Dr. Mogridge, the low resisting powers of the subject. We know that the nervous force in all their organs is low;

we know that it is so low that they lack sensibility to pain. Their low resisting power to all kinds of disease probably has a very great bearing upon the subject. And there is another point touched upon. The older the institution the more frequent the disease. I think there is a great deal in that. I have a case in mind of a child in an institution where a child died of tuberculosis three months since. A sister was constantly near the child,—a great deal about her bed side, with the consequence that she is now affected in both lungs. It is hard to tell how far we are to blame in that matter. It is hard to separate two sisters where one is passing away, where they are attached to each other, and their lives, perhaps, are not so valuable as others whose sphere of usefulness is wider.

I think the subject of isolating tuberculous patients and having them live a more out of door life is rapidly gaining public attention. The medical profession is pushing the matter in some states with the idea of establishing camps, out of door camps for that purpose. It is a hard subject to deal with. I do not know that we can do much in our institution now because we are very much crowded,—I think they are all over crowded and we cannot help it. Public sentiment in giving appropriations, will not give us individual appropriations and we must continue to crowd them in and take the dangerous cases that come to us with the risk of infection by disease. I know of one or two institutions, one especially, the Southeastern Hospital of Pennsylvania, where they devote a building to the use of tuberculous patients. They have been removed to a cottage,—I do not think a cottage furnished by an appropriation, but they have taken a building used for other purposes and devoted it to this use, and it seems to me a very wise idea to furnish separate accomodations for these patients so far as we can do so.

Dr. Dunlap: In our institution we have moved about forty beds out on porches, and the children have been occupying them for nearly a year. We have some of the space closed up by sash and in the summer simply by netting. The sash is to protect them from severe storms. They have grown to be really fond of sleeping out on the porch, and there is a visible improvement in many of the cases. We have also utilized the flat roof of a building and covered it with an awning, and have found it to be of great advantage. They are allowed all the covering they need, and some of them pin blankets around their heads. They have received positively no injury from it.

Dr. Thompson: Ladies and gentlemen, I just wish to make a few remarks. I understood the object of the paper was to show that tuberculosis was the cause of feeble-mindedness, and if that be true, what we are able to do in lessening that condition in our institutions is very little, unless it be that we might educate the people, and advocate such laws as may prevent consumptives or those of tuberculous taint from marrying. If we could do that we would be carrying out what the paper was intended to teach. Of course we admit that it is best to isolate all our cases of tuberculosis within the institution. We know that it is a contagious disease and has a tendency to spread, but I think what we ought to discuss is, if tuberculosis is the cause of imbecility, to do something outside of our work, in lessening the causes. If it is the cause and persons continue marrying, they should not

marry of course, they will still be sending us feeble-minded children unless we can do something to educate those outside. I have grown gray trying to give the cause of imbecility or feeble-mindedness in children. The cause, I find is legion. We have many causes. I would, from my own observation give tuberculosis as one of the main causes at least, and I think it is our duty to enlighten the public as much as possible, whenever we do find the real cause of this condition, so that we may lessen the number of feeble-minded children. Of course our work here is largely inside of the institutions, to develop those that are in that condition, that are sent to us, and to care for them, keep the sexes separated and thereby lessen the propagation of more, but if the causes still exist outside, of course we will continue to have feeble-minded children. But if there is anything we can do that will enable us to discover these causes and prevent this condition, we will have accomplished that much in our work.

Dr. Murdoch: The paper of Dr. Henninger is two-fold in its aspect, one mainly speculative as to the part tuberculosis plays in the etiology of feeble-mindedness, and personally I believe it is a very great factor. The other aspect of the paper was a very practical one which we know more about, that is, the treatment of tuberculosis among the feeble-minded. We know that tuberculosis is a contagious disease, that its cause is the entrance into the system of the tubercle bacilli, we know we cannot have tuberculosis without having the tubercle bacilli enter the system, and we know that the bacilli of tuberculosis exist in the sputum of consumptives. We cannot teach our consumptive imbeciles to be careful in regard to their expectorations and to cleanliness as we can the mentally normal, so it becomes a matter of great importance for the welfare of those who are not tuberculous, that the tuberculous be separated from the non-tuberculous. It is desirable, of course, to have a special building constructed especially for the care of this class, but we can all do something in the way of classifying and keeping together the tuberculous, although we may not be able to make an extreme line of demarkation between this class and the non-tuberculous, we should in so far as possible keep the non-infected from the infected. We are trying to do that in the institution under my charge. Not having a special building for the tuberculous, we have gathered all the boys we know are tuberculous into one cottage, and all the girls that are infected into another.

Dr. Mogridge: What is your experience, Dr. Murdoch, in regard to feeble-minded children expectorating? Do you find it a common thing for them to do that, especially the lower class? Can you get sputum to make an examination?

Dr. Murdoch: We do not find them expectorating. There is more or less drooling from the mouth, but that is largely saliva.

Dr. Mogridge: We have had great difficulty in a great many of the lower grade cases to get sputum to make an examination.

Dr. Thompson: I have one case in which I can furnish you all the sputum you need.

Dr. Rogers: I think that is one point that is liable to be overlooked. For while feeble-minded children swallow the sputum, is it not a fact, doctor,

that the bacteria are not destroyed by passing through the alimentary canal? With low grade children it is very easily seen that the dejecta will cause a distribution of the bacilli and in that way spread the infection.

I was a little surprised to find that the percentage was as low as thirty three and a third. I think it is nearer fifty with us and has been since he early history of the institution when the building was new. As to the buildings forming a home for the bacilli, there is no question about it. I think all of you have had occasion to observe that fact. The physicians here will remember that in one wing of our school department where we had a case of tuberculosis a few years ago followed quite promptly by three others. It did not occur to us at the time that the first case had brought the tuberculous bacilli here. At all events the three followed very rapidly. Of course, we thoroughly disinfected the toilet rooms and living rooms and everything as far as possible, and I think we finally rid that part of the building of tubercular bacilli entirely. But as was stated the disease is not so apt to break out in the school department or among the school children who are out of doors more of the time. The last legislature gave us fifteen thousand dollars for the construction of a tuberculosis hospital. The architect is very anxious to have the sketches for the plan, in fact, I expected him here today, but I have been requesting delay until I could have the benefit of this day's discussion.

Mr. Chairman, Dr. Huxley, formerly an assistant physician with us, is present. He is very much interested in the subject of tuberculosis and perhaps he has something to say on it.

President Johnstone: Dr. Huxley, we shall be very glad to hear from you.

Dr. Huxley: Gentlemen, I am entirely unprepared to talk about tuberculosis further than to state that our experience here was that the number of tubercular cases was more than that reported in the paper. The startling thing to me was that those dying from various causes showed tubercular lesions in a large per cent of the cases. I do not mean definite lesions, but perhaps the beginning of a tubercular lesion in a lung or evidence of a tubercular lesion in the intestine. It was found, I think I am safe in saying, in eight per cent of the cases, including epilepsy and other cases. The statement was made that the tubercular cases do not expectorate and that has been our experience. I was very much interested in laboratory work, and I do not recall one single case in which I was able to get tubercular sputum. Even the higher grades did not seem to expectorate.

President Johnstone: I would just like to say that in our institution we have had a couple of severe tubercular cases in a tent on a platform some little distance from the hospital, since the first of February. Two years ago we used one of our rooms in the hospital which we call the sun parlor, and which is closed on three sides, for two of our tubercular cases. They were kept there with open windows all through the winter well wrapped up so as to keep them from catching further cold, and they passed through the winter very nicely. We do not have as severe a winter, of course, as you have here or in Wisconsin, but the effect in all of the cases has been of

marked benefit. The tent idea we propose to extend somewhat further during this summer, and next winter we propose to try running all our cases through the winter in a tent. I do not know whether we shall find it too cold or not, but we have had very severe weather since the first of February, even for us.

Dr. Murdoch: The isolation of tuberculous patients, I take it, is of vastly more importance than their treatment. As a rule the feeble-minded tuberculous subject will succumb to tuberculosis, but during the existence of the disease he may infect a great many others, so that his treatment, while it is of course a matter of importance, is very insignificant in comparison with the importance of his isolation.

Dr. Rogers: Of course the out door treatment is a part of the isolation in the very nature of things, to spare the walls of the buildings from an accumulation of bacilli.

ENTERTAINMENTS AS A PRACTICAL FACTOR IN THE TRAINING OF THE FEEBLE-MINDED.

MISS ALICE MORRISON, VINELAND, NEW JERSEY.

CONSTANT application of one's self to any line of work or thought without a reasonable amount of respite wears out life's tissue in an immeasurably short period of time.

Mankind is so constituted that moments of relaxation are necessary to one's very existence.

These may come in a thousand different ways—to some the quiet twilight hour when they are alone, to others the beautiful music of the grand opera, or perhaps the shelves of carefully arranged books, while again it may be an ocean trip, or a quiet drive in the country.

Thus in its many and varied ways comes the recreation hour. To us who possess judgment, reason and will, these moments come involuntarily. A small voice, which may be the weary body, or the tired brain, whispers to our inner selves. We understand, and obey.

With the feeble-minded child this is different. Here the small voice whispers, but receives no response, until the directive hand places the child in a condition where its then greater enjoyment makes it realize that now it possesses a something which before was wanting. Yet it would be an impossibility to take each feeble-minded child individually and supply reason and will, leading him for the time into these channels of diversion. However, entertainments make all this possible. Here we may take all of our children to the "Land of Nod" or to the mystic realms of "Aladdin" maybe, where they experience supreme, realistic enjoyment, and again, when the children themselves become the real, living kings and queens of these most wonderful places, (for to the feeble-minded child play for the time, is real life) the development and training gained thereby, is without question of more authentic value than any other line of education.

In these institutions, which we believe are hardly to be equaled in their resultant training, entertainments are really of vital importance. They not only develop the brain, strengthen the body and exercise the memory and will of many of our improvable children, but they afford pleasure and enjoyment to the number who have reached their mental limit, and also to those whose life is a mere existence, but for whose health and happiness we are responsible until they shall be called home.

Briefly, I wish to outline for you a few of the entertainments which we have had in our institution during the past year, thus showing how invaluable they have become in our school training.

Throughout the entire year we have had an entertainment every Wednesday evening besides several other special ones. These entertainments vary. Sometimes they take in the little children only, others the older ones, while still others take in practically all of the children in the institution, even including many of the custodial cases. One of the entertainments each month is planned and given by one of the teachers, for which entertainment she is to use only the children who come to her for one or more class periods. This equalizes the entertainment training of every school child.

The teachers' entertainments, as we call them, are usually made up of several numbers, as, for instance, the one given by the Kindergarten teacher consisted of songs, drills, etc. However, the essential numbers of the program were those given by the Kindergarten children and a prettier or more entertaining and really touching scene could hardly be pictured than this: Imagine twenty-four little children, dressed in pure white going through their simple little exercises, singing their songs, etc., in a manner which would be creditable to normal children even. The preparation of all this means months of patient and careful training on the part of the teacher, the little children needing to go through the same movements times without number.

One little girl in particular, when she first began to drill for this entertainment, could hardly walk across the polished floors without help, and in the part of the exercise where the children were to kneel, this little one simply could not do it. Day after day the teacher worked with her until on the night of the entertainment little Ada did quite as well as many of the others.

The developmental value of such training to the children is priceless, and I might say to the institution also, for what parent is there whose heart does not beat with pride and pleasure at the thought of their little Howard or May, even in their deficient condition, being able to take part in an entertainment. And to humane institutions like this there is nothing more gratifying than the manifested pleasure and appreciation of parents and guardians.

Another entertainment given by the wood-carving teacher consisted of a "Brownie's Reception." In this the middle grade children, not capable of the prominent parts, were costumed to represent the different Brownie characters, thus giving each child possessive interests in the entertainment, and it would surprise one to know how much this meant to many of the really dependent children. The feeling of ownership and responsibility seemed to awaken to some extent their dormant minds, calling forth in them activities which before were seldom, if ever, exercised.

Each one of the entertainments given by our teachers is worthy of special mention. However, I will leave them for the present, and describe two or three other of our fixed entertainments which are of an entirely different character, yet of equal training value. First, our birthday parties, which occur each month, are perhaps of all, the ones which give greatest pleasure to the greatest number of children, as at these times each and every one, employes as well as children, are called upon to play games, march, etc., and it is a very rare exception indeed when anyone fails to respond. The children whose birthdays occur during the month in which the party is given, are the recognized guests of the evening. A bouquet of flowers and special seats of honor designate them as "birthday children." They bring samples of their work, which they themselves exhibit to every one, to show us how much they have improved during the year (and this I wish to say is a most valuable incentive). Later they tell their ages, and as no one's birthday party would be complete without its cake, so our children look forward to and receive their refreshments as one of the last and best numbers of the evening's program.

To an interested visitor, witnessing one of these enjoyable evenings, filled with laughter, music, pleasure,—benefit,—the question of entertainments as a factor in the education of the feeble-minded would be satisfactorily answered, I am sure.

Another entertainment of still different character is one which we call "contest." At these entertainments about sixty children are chosen to contest against each other, in pairs, in making beds, washing dishes, reading, spelling, etc. Usually the program is divided into three sections, twenty children taking part in each. As their names are called the twenty children take their places on the platform, where are found in readiness two beds to be made, two problems to be solved, and so on in twos, paring of fruit, husking corn, reading, washing faces and indeed, every form of occupation or training which can be brought on the platform. Judges are then chosen from the employes, and at the tap of a bell the contest opens, and for ten minutes every child puts forth his very best efforts. The bell taps a second time and everything stops. Judges decide. After that, the stage is cleared and prepared for the second section. The children then come and take their places, and so on until all have contested. The names of the winners are then read by the superintendent, and as he reads they all go on the stage, where they receive oranges or apples as prizes for their good work.

One might think for a moment that this would cause a feeling among the children, but as we only speak of the winners, such is not the case. The effect is quite the opposite, it rather stimulates them, causing all to try harder, and as they say, "win next time."

During the past year our children have given several receptions, for which occasions they have been responsible. The decorating of hall, preparing of refreshments, to a certain extent, and planning of program being left almost entirely with them. These receptions certainly proved to be of exceeding great value and pleasure both to the children and employes, for at

these times they entered into the spirit of the evening with more zeal and enthusiasm then at any other of our social gatherings.

Our special entertainments, such as those given at Christmas time, Washington's Birthday, Annual Day, etc., are of such character that I hardly need speak of their worth, except to say that these have not only been of real training value, but they have also given our institution character and standing, which could have been gained in no other way.

I have simply spoken of a few entertainments given in our own institution to show how really valuable such work can become to all of us. I do not mean to infer, however, that all other work should be neglected or sacrificed for entertainment preparations, yet I do think that the things in life which call into action the greatest number of forces are the things which count most in complete development, as for instance, the boy or girl working in the shop, cottage or school-room, under the direct supervision of teacher or trainer, does not exercise the same amount of judgment, thought and will as the child who is put on his own responsibility; as is the case when our children take part in plays, cantatas, etc.; and again, a child may be taught to do the same thing, drill, sing or play in the class-room, without a definite aim in view, and he will not take one-half the interest as when told that it is to be given as a number of an entertainment.

All work alone, or all play alone, as for instance, institution routine without diversion of some kind, or enterainment work to the detriment of other things, would be entirely wrong. The two must co-operate, if best results are to be gained.

Let us not forget, however, that while training and development are things of momentous consideration, the happiness of our children is paramount to all, and in closing I would like to say that "happiness" should be the keynote of every institution in the land, for "where there is happiness, there is love, and where there is love there is peace, and where peace is, God is".

FEEBLE-MINDED AND EPILEPTIC.

J. C. CARSON, M.D., SUPERINTENDENT SYRACUSE STATE INSTITUTION FOR FEEBLE-MINDED CHILDREN,
SYRACUSE, N.Y.

FROM a general perusal of the messages of governors of states and legislation in relation to the epileptic and feeble-minded throughout the country for 1903, it is evident that questions concerning them are gradually receiving wider public interest. Legislation affecting one or both of these classes is found in no less than twelve different states, and in seven attention was called to various needs in relation to these classes in the messages of governors.

GOVERNORS' MESSAGES.

In Indiana the governor (8 Ja. '03, P. 34) advised earnest consideration for the epileptic and recommended the appointment of a commission to investigate all matters pertinent thereto and report on a plan making provi-

sion for their welfare. Interpreted, this means a preliminary step toward the selection of a site for an institution or colony and probably separate provision by the state for the epileptic class.

In Michigan the governor (8 Ja. '03, p.4,5) recommends suitable legislation toward creating an institution for the care of the epileptic. He advises separating epileptics from other defective classes, and the feeble-minded, believing that the contact of one class with another is injurious. He also advises purchasing a large tract of land and adopting the colony system, which he commends as having proved satisfactory in other states where it has been tried.

In Utah the question of a school for the feeble-minded had received the recommendation of the superintendent of public instruction. With this recommendation the governor (13 Ja. '03, p.14) while recognizing the humanity of the purpose, takes issue on economic grounds. He advises that, instead of a new state school exclusively for the feeble-minded, the schools for the deaf and dumb and blind should be authorized to include this class. Such an arrangement is only a postponement of the inevitable and has always been found unsatisfactory wherever tried. It is however a project not to be altogether condemned, and one which will eventually lead to separate institutional care.

LEGISLATION

In Delaware ('03. ch. 370) legislation was enacted for the relief of the idiotic children of the state. In this state no separate provision for the feeble-minded has yet been established. It would appear as if certain ones of this class were being provided for in the institution for the deaf and dumb and blind. The act provides authority for discharging any indigent pupil, presumably idiotic, who has received all possible benefits at the school and the delivery of such child to any person in the state entitled to his custody and, if no such person can be found, to the county almshouse. This legislation means almshouse care and is, we believe, uufortunate, but is perhaps pardonable in a state as small as Delaware.

In Kansas it was enacted ('03, ch. 484) that the Parsons State Hospital "shall be devoted to securing the humane, curative, scientific and economical care and treatment of epileptics and insane epileptics," and the government of the hospital is placed under the control of the Board of Trustees of State Charities and Correction. This board is required to make rules and regulations necessary for admitting epileptics, both sane and insane, to the hospital, and respecting their treatment, care, education and other matters. The policy of placing all classes of epileptics in one institution is a doubtful one and the effect on sane or simply feeble-minded epileptics from contact with those who are insane can hardly fail to be prejudicial to all interests. The generally accepted opinion is that it is much better to provide for the custody of insane epileptics in hospitals for other insane.

Legislation was enacted in Montana ('03, p 309) making aggregate appropriations of $30,000 "for the erection and equipment of a school for the feeble-minded." The act authorizes the expenditure of $2,000 for the purpose in

1903 and the balance in 1904. The legislation thus effected appears to be the first in that state in the interests of the feeble-minded.

In North Dakota a constitutional provision requires that feeble-minded persons shall be cared for at the Northern Hospital for the Insane at Jamestown. In 1901 the Legislature passed a resolution to amend the Constitution with a purpose of locating an institution for the feeble-minded at Grafton. This resolution was repassed by the Legislature of 1903 and will be submitted to a vote of the people in November, 1904. Presupposing its repassage and subsequent approval by the people, the Legislature of 1901 passed an act ('01, ch. 36) authorizing the governor to appoint a board of trustees to procure plans, etc., for the proposed institution. This act was repealed ('03, ch. 108) which is an "act to establish an institution for the feeble-minded and to provide for its support and management". Section I locates the institution at or near the city of Grafton and designates it as "The Institution for Feeble-Minded." Sections II to VI provide for the appointment of a board of trustees, regulate their terms of office, prescribe their duties, and empower them to appoint a superintendent who shall be a physician skilled in the care of the feeble-minded. Section VI provides for admitting all feeble-minded persons residing in the state, of suitable age, capable of receiving instruction, whose defects prevent their admission to the public schools. It also gives authority for admitting idiotic and epileptic persons and makes the institution one of a mixed character, *i. e.* both educational and custodial, and it would seem for both classes, the idiotic and epileptic. Further sections of the act prescribe the duties of the officers of the institution and regulate matters pertaining to the support of pupils and inmates, which are not materially different from corresponding laws governing institutions of the same mixed character in other states.

Pennsylvania has already provided two large well equipped institutions for both the feeble-minded and epileptic classes, one at Elwyn and the other at Polk, on the mixed educational, industrial and custodial plan. A third institution on the same plan, to be called the State Institution for the Feeble-Minded and Epileptic of Eastern Pennsylvania was authorized by the Legislature of 1903 (ch. 424). Section I to VI provide for the appointment of a commission, the selection of a site for the institution, the approval of the site and cost by the governor, of the plans by the State Board of Public Charities, and the appointment of a superintendent of construction. Section VI appropriates $50,000 for purchasing the land, preparing the plans, and beginning the erection of the buildings. Section VII requires that the buildings shall be constructed in two groups, one for the educational and industrial departments, and the other for the custodial or asylum departments with subdivisions for classification, on a scale to accommodate not less than five hundred inmates, all to be on a plan for easy and natural additions. Section IX provides that after the buildings are completed the commissioners shall surrender their trust to a board of trustees to consist of nine members serving without compensation, appointed by the governor. Section X defines as the purpose of the institution, "the reception, detention, care and training of epi-

leptics, idiotic, and feeble-minded persons of both sexes," and requires the buildings shall be so planned that provision shall be made for separately classifying the inmates into groups embraced under the terms "epileptics", "idiotic" aud "imbecile" or feeble-minded." It further specifically determines that agricultural training shall be the primary educational feature. Sections XI to XVII relate to admissions and authorize the board of trustees to receive feeble-minded children under twenty years of age, incapable of receiving instruction in the common schools, according to such rules and forms as the board may determine. Feeble-minded adults of "inoffensive habits" are to be admitted in accordance with the same form of commitment as is required at the state hospitals for the insane. Section XVII requires the board of trustees to appoint as superintendent a skilful physican of five years' actual practice at his profession, of competent medical and executive ability, who in turn is required to appoint as many assistants, attendants and employes as the board deems necessary, together with a steward whose appointment requires the approval of the board, the salaries of all to be fixed by the board of trustees.

From some knowledge of the existing conditions in Pennsylvania and where the population is so great, it is our opinion that, instead of a new institution on the mixed plan of providing for all classes of the feeble-minded and epileptic, there is greater need of an institution for the strictly custodial or asylum cases, similar to the one at Rome, in this state: or, what might have better met necessities in Pennsylvania, perhaps, would have been the establishment of a colony for epileptics exclusively, the separation of the epileptic class from the feeble-minded having become of late years generally recognized as both important and desirable. A second act in this state ('03, ch. 78) authorizes the increase of the charge for maintenance at the Pennsylvania Training School for Idiotic and Feeble-Minded Children at Elwyn, from $175 to $200 a year.

In South Dakota ('03, ch. 188) an act was passed amending the law relating to the Northern Hospital for the Insane. The amendment provides for admitting imbecile, feeble-minded or epileptic persons at the State Insane Hospital in so far as its facilities will permit and prescribes a residence in the state of one year instead of six months as a preliminary requirement to admission. It also provides for admitting patients at both public and private expense. The law states that if such persons admitted are suitable they shall be educated in the hospital at the expense of the state, which implies the maintenance of a school, therefore making the hospital educational as well as medical and custodial in its character. This legislation in South Dakota is hardly in keeping with the progressive spirit of the neighboring state of North Dakota where since 1901 legislation has all been shaped, as elsewhere noted, with a view of separate provision for the feeble-minded and the insane.

An act ('03, ch. 108) providing for admitting epileptics to the epileptic colony became a law in Texas. The act also provides for transferring epileptics to the colony from the insane asylums of the state. It prohibits the

admission to the colony of idiots and imbeciles and those who are of the helpless class. The terms "idiot" and "imbecile" are defined as meaning persons "with but little or no mind" and whose arrest of development was either congenital or took place after birth. Of the patients admitted to the colony the law makes three classes: indigent, non-indigent and private, and states that so far as accommodation is concerned the first class shall have the preference, and the second class over the last named. It would appear that the colony shall receive but two classes of epileptics, the sane and the insane. There is nothing in the law which indicates any separation of the two classes. Though it is presumed some classification is intended, yet under such an arrangement there could hardly fail to be more or less association of the sane epileptics with the insane, a policy which cannot be commended and must inevitably prove unsatisfactory. We are also of the opinion that the non-indigent class of patients is equally if not more worthy of care and maintenance by the state than those who are altogether indigent: certainly by right they should be placed on not less than an equal footing.

The Legislature of Virginia by an act ('03 ch. 110) amending '00, ch. 933 requires the superintendent of any hospital for the insane in the state to order the removal of any idiot or harmless dement who shall have been admitted therein. As no institution for the feeble-minded exists in the state, the county almhouses must therefore become the receptacles for all such cases without friends or guardians, a condition to be deplored, especially in a state as old and populous as Virginia. Interpreted, the law means an effort by the state to provide room for a few more insane, while at the same time it coldly abandons the poor idiot or harmless old dement to whatever fate may befall him.

Public provision for the feeble-minded in Washington is made at the School for Defective Youth located at Vancouver. This school is maintained for the three classes: the deaf, blind and feeble-minded. The Legislature passed an act ('03, ch. 140) making the school free to all resident youth in the state of the three classes named and providing for a regular school term of nine months in the year for the deaf and blind, but stipulating that the department for the feeble-minded shall be kept in continuous operation throughout the year.

DISCUSSION—CARSON'S REVIEW

President Johnstone: The paper is now open for discussion.

Dr. Mogridge: Is the institution in Montana to be in connection with the institution for the blind and deaf?

Dr. Rogers: I understand so.

President Johnstone: Dr. Baldwin, have you anything to say?

Dr. Baldwin: I would like to ask a question. I would like to know if any institution now existing in the country was helped by the national government? We got thirty thousand dollars from the national government. It was appropriated originally for a state penitentiary which was to be located at Grafton. Some of the politicians sold land for the penitentiary at Bismarck and they went on building it there before the money was available.

This money was appropriated at the time the two Dakotas were admitted to statehood. Through the efforts of Mr. Cashell, a resident of Grafton, United States Senator Hansborough introduced a bill appropriating the thirty thousand dollars for the use of the feeble-minded institution for North Dakota, and we got it.

Dr. Murdoch: I do not think that could be worked more than once.

Dr. Baldwin: The institution at Grafton was erected at a cost of seventy thousand dollars with accommodations for one hundred and fifty.

President Johnstone: Is there any further discussion of this paper?

Dr. Murdoch: I might add to Dr. Carson's paper, that since that report with reference to Pennsylvania, was handed in, no doubt, the committee appointed by the governor to select a site, has located a site in Chester county about twenty miles from Philadelphia. I do not know the extent of it or the character of it. I understand that they have determined upon the site and are now at work upon plans to present to the coming session of the legislature. Spring City is the name of the place.

President Johnstone: Since Dr. Carson's report, we have had three laws passed in New Jersey affecting the feeble-minded, that are, we think, quite good. One of them is in regard to the amount that parents who are able to pay should pay. That has heretofore been decided by the county commissioners and possibly politics entered into it a little but that matter must now be confirmed by the Judge of the Court of Common Pleas, who must send a statement to the governor that the findings of the committee are correct.

The second law is a rather important one, I think, and one that all of us have been anxious to have in connection with our institutions. It states that when application is made for admission of children to an institution for the feeble-minded or epileptic, the fact of having made an application makes the parents waive all right to remove their child temporarily or permanently, without the recommendation of the superintendent and the approval of the governor. It gives the superintendent, however, permission to allow vacations, for a limited time.

Dr. Rogers: Is that a general law for all the institutions in your state?

President Johnstone: Yes, applying to the two large institutions for the feeble-minded and epileptics.

Dr. Mogridge: The fact of signing the application does not waive all rights. That must be stated in the application, must it not?

President Johnstone: It does, providing the children are admitted.

Dr. Mogridge: The fact of signing the application does not waive their rights. That statement must be in the application that they do waive their rights.

President Johnstone: No, we are printing that law on our application blank, and that covers the ground.

MINUTES OF THE PROCEEDINGS OF THE TWENTY-EIGHTH ANNUAL SESSION OF THE ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS.

FARIBAULT, MINN., JUNE 23, 24, 25, 1904.—MORNING SESSION JUNE 23.

The meeting was called to order by the president, Mr. E. R. Johnstone, at 10:00 A. M., June 23, 1904, in the Assembly Hall of the School for Feeble-Minded, Faribault, Minnesota. Those present were Mr. and Mrs. E. R. Johnstone, Dr. A. C. Rogers, Dr. and Mrs. Murdoch, Dr. Mogridge, Mrs. Murdock, Dr. Mary Dunlap, Mrs. Gile, Dr. Wilmarth, Dr. Thompson, Mr. W. K. Weissbrodt, Miss Smith. Dr. Rogers read letters of greeting from Dr. John Stewart, Mr. D. F. Lincoln, Dr. F. W. Keating, Dr. G. A. Doren, Dr. A. H. Beaton, Dr. W. E. Fernald, and Hon. William Letchworth.

A letter from Dr. White of Florida, who is not a member of the Association, was read describing his efforts to start a school in Florida.

Dr. Rogers: The letter from Mrs. Catherine Brown will be of special interest to most of the persons present, and all of the older members will remember dear Mrs. Brown who is one of the mothers of this association. I think it would be appropriate some time during the session for some message to be sent to her from this association. Dr. Fernald, as you remember, is chairman of the section devoted to the treatment of feeble-minded and epileptics at the National Conference of Charities and Correction held at Portland, Maine. Yesterday, I think, was the day when his section was to be held. We also have a communication from Mrs. Barrett who has recently started an institution in Texas.

President Johnstone: The next order of business is the election of new members. Has any one any names to offer?

Dr. Rogers: I wish to propose the names of Dr. Charles S. Little, Laconia, N. H., Dr. Thompson, Marshall, Mo., Prof. W. K. Weissbrodt, Watertown, Wis., Dr. H. A. La Moure, Faribault, Minn., Dr. L. A. Baldwin, Grafton, N. D., Rev. Gustave Tillmans, St. Charles, Mo., Dr. William J. G. Dawson, California, and Dr. Andrew Johnson, Beatrice, Neb. The president has proposed the names of C. E. Nash and Miss Alice Morrison, Vineland, N. J.

President Johnstone: Are there any further nominations?

Dr. Rogers: I wish to add the name of Mrs. Lillian Murdock. Glenwood, Ia.

Dr. Murdoch: I second the nominations.

President Johnstone: Are there any further nominations? If not, what is your further pleasure? It has been moved and seconded that the persons whose names have been mentioned be made members of this association.

All in favor of the motion will signify the same by saying aye. Motion carried. It is so ordered.

Dr. Rogers: Mr. Chairman, there is no special business to come before the association at this time. I have a letter from Dr. Smith who has been looking after the exhibit at St. Louis in which he states that he would recommend that all who so desire should leave some literature there. He says it disappears very rapidly and that everything that he had on hand has been taken which is a good indication that the people are interested,—are hungry for things of that kind, so that all of you that are interested should have your literature there. Send it to Dr. W. H. C. Smith, Godfrey, Ill. Describe your work or any feature of your work that you wish to have the public know more about.

President Johnstone: Has any one anything further to bring before the association this morning?

Dr. Rogers: Mr. Chairman, Mrs. Rogers will expect the members to lunch with us at one o'clock at the cottage just north of the main building, so that if the clans will gather there just a little before one o'clock, she will be pleased to receive you.

President Johnstone: If there is nothing further a motion to adjourn until three o'clock is in order.

The association voted to wire a greeting to Mrs. Brown.

President Johnstone: Is there anything further to come before the association? If not, a motion to adjourn until the afternoon session at three o'clock,—or at the call of the chairman, is in order. We will consider such a motion passed.

THURSDAY AFTERNOON SESSION

President Johnstone: The meeting will please come to order. Before proceeding with the regular program the secretary has an announcement to make.

Dr. Rogers: Two more names for membership have been suggested. Miss Clara L. Smith, Marshall, Mo., and Miss Margaret McLean, Faribault, Minn.

President Johnstone: Are there any other names to be proposed for membership? If not, what is your further pleasure?

Dr. Mogridge: I move that the names be added to the roll.

Dr. Rogers: I second the motion.

President Johnstone: It is moved and seconded that these names be entered on our membership roll. Are there any remarks? If not, all in favor of the motion will signify their assent by saying aye. Contrary, no. It is so ordered.

The first paper on the program was entitled "Some Experimental Studies in Mental Deficiency," by F. Kuhlman, of Clarke University, Worcester, Mass. This paper was read by Dr. Wylie.

A paper on "Imbecility and Tuberculosis" by Dr. C. H. Henninger of Polk, Pennsylvania, was read by Dr. Murdoch.

President Johnstone: The next two papers of this section are not here. Before going into the next section these papers that you have heard are now open to discussion. We shall be very glad to hear from any one who has anything to say concerning either of them.

As the papers for the rest of this section are not here yet, we will proceed with the first paper for tomorrow morning's session, "The Value of Institutional Meetings," by C. E. Nash, of Vineland. Dr. Wilmarth will read this paper.

The next two papers for Friday morning's session being particularly school papers, Dr. Rogers would like to have his teachers present. We will therefore now take up the fourth, "A Border Line Case—On the Right Side of the Line," by Dr. Lincoln, of Boston. Dr. LaMoure will read it.

Dr. Rogers read a telegram from Dr. George H. Knight, extending his greetings to the association, and expressing his regret at his inability to be present at the twenty-fifth anniversary of the institution.

Dr. Rogers: Dr. George H. Knight was the first superintendent of this institution. This is the twenty-fifth anniversary of its organization.

Mr. President, we have with us Judge Gould, a member of the board of control of Minnesota, and Mr. Clarence H. Johnston, the state architect. I would suggest that the privileges of the meeting, discussions and so on, be extended to them.

THURSDAY EVENING SESSION.

Dr. Rogers: It requires some courage on the part of the good people of Faribault to come out after the terrible storm we had today, and I am sure that we appreciate the fact that you have done so.

In the year 1876, on the 6th of June, there gathered at the Pennsylvania Training School for Feeble-Minded Children at Philadelphia, a little group of men and women who met for the purpose of organizing an association which would devote itself to those subjects which would promote the welfare of the feeble-minded. Among those present were Dr. Edward Seguin, Dr. H. B. Wilbur, Dr. I. N. Kerlin, who sent out the invitations for the meeting, Dr. H. M. Knight, and Dr. George Brown. I mention these for special reasons.

Dr. Seguin was the physician who in 1837 and 1838 laid down, as a result of his experiments with feeble-minded children in Paris, the fundamental principles of the philosophy and methods that have since been applied to the training of the feeble-minded. Dr. Seguin's book today is the classical text book on the subject.

Dr. C T. Wilbur was the first man in America to systematically engage in the training of feeble-minded children, and he opened for that purpose a small institution at Barrie, Massachussetts. That was in 1848. Very soon New York established a state institution at Albany, afterwards located at Syracuse, and called Dr. Wilbur to take charge of it, and he remained there until his death. Succeeding him at the Barrie institution was Dr. George Brown, one of the gentlemen mentioned, who carried on that work until his death and today we have a greeting from his widow, Mrs. Cath-

erine Brown, eighty years of age and expected not to be with us much longer,—a greeting to this association linking the past with the present.

Dr. H. M. Knight, the other person whom I mentioned was called by the trustees of the Minnesota Institute for the Deaf and Blind and the School for Imbeciles, as it was then known, to assist them in the organization of this institution which began its work in the large frame building rented by the state, which most of you remember, situated just this side of St. Mary's Hall. It has since burned. In this way the names that I have mentioned are linked with the organization of this association and closely identified with the work even in Minnesota.

The purposes of the organization were stated as follows: "The discussion of all questions relating to the causes, conditions, and statistics of idiocy; to the management, training and education of idiots and feeble-minded persons, and to also lend its influence to the establishment and fostering of institutions for this purpose".

At that time, 1876, there were seven state institutions, one supported by the city of New York, and two private institutions, one in Massachussetts and one in the city of New York. This work has been growing until now there are fifty-nine institutions, thirty-two private and twenty-seven state, besides possibly some other small institutions of which we have no cognizance.

I have only to state that this association while represented by few members is convening at this time with us at this institution in Faribault. We make this the occasion to fully open for the first time this beautiful hall which the state has so generously and liberally provided for the use of this institution. In 1886, the other one of the five persons whom I have mentioned as being present at the organization of the association, Dr. I. N. Kerlin, was in Minnesota. At that time the board of trustees were building the center portion of this building. The question of an assembly-hall was raised, and it was decided to build one, the size of which is represented by these walls but not of the present height. Dr. Kerlin came into the hall—the first floor was laid, the walls were not yet completed, and he said, "You are making a mistake. Your hall is too small. Your institution will be growing and in a few years you will wish it were twice as large as it is. If you can't do anything more I would raise the walls higher". Whereupon the trustees raised the walls two feet. Four years ago an appropriation was made by the legislature for increasing the size of the hall, because our population which was only about one hundred and seventy-five, in 1886, at the time this hall was built, was at that time something over eight hundred. When the bids were obtained for rebuilding the hall and placing a gallery in it, which would increase the capacity is the only way we could increase it, we found it was impossible to complete it with the money appropriated. So two years ago the legislature gave us an additional amount which has been expended under the direction of the board of control, which has given us the hall that you now see.

With these preliminary remarks I wish to introduce to you a gentleman well known to most of you, representing the board of control, and who with

the architect, Mr. Clarence H. Johnston, also present this evening, has had the most to do with the erection of this building. I take pleasure in introducing Judge O. B. Gould.

Judge Gould: Mr. Chairman, Ladies and Gentlemen: I hope none of you have come here expecting a formal address on this occasion, although perhaps you are a great deal better off than you would have been if I had prepared a formal address. It gives me great pleasure to be here with you tonight on this happy occasion. When I look over this country of which we are all so proud; when I reflect upon the military glories which it has achieved; when I think of the great enterprises which it has carried on, which have attracted public attention and the admiration of the world, I am at the same time reminded that the victories of peace are greater than those of war. Schools, hospitals, infirmaries and various organizations for the benefit of the unfortunate, dot our young state, and are to be found in our sister states throughout the union. In this direction do I think that a great government fulfills best its mission. Our state has been fortunate in the selection of this beautiful spot for the erection of its three principal beneficient institutions. I am glad to congratulate the people of Faribault as well as the state that we have been thus fortunate in the selection of a site, that the institution here represented is so efficiently doing its work, and that the reputation of its chief officer has become such that the school, its locality, and the head of the institution are known and honored throughout the land. As a member of the state board of control I have had a small part during the last two or three years in planning for and assisting in making the expenditures which have been made upon these grounds, and it is with no little pleasure and satisfaction to the board that we can look upon this beautiful meeting place, where the people who are employed in this institution as well as the inmates thereof, may meet under surroundings best calculated to inspire noble and uplifting thoughts. If in the future this institution shall grow as it has been growing for some time past, and must grow as I take it, with the growth of the population of our state, even this now pleasant and spacious hall will again have to be enlarged, as the doctor says it has been from its original form. When that time comes, if I am here I shall be pleased to participate in its celebration. I bring to you tonight, ladies and gentlemen, no particular message, except a greeting upon the good work that is being accomplished in the institution, and to expresss my pleasure at being present with you.

Dr. Rogers: It gives me a great deal of pleasure to present a gentleman well known to most of you, who has very kindly consented to deliver the dedicatory address on this occasion, the Rev. Alford A. Butler.

Rev. Butler: Ladies and Gentlemen: I think if I were to choose a motto for the address that I am to make to you to-night, I should take that old and perhaps well worn one of the wise man, "Iron sharpeneth iron, so man sharpeneth the countenance of his brethren". The figure at once calls up to us the image of two pieces of iron, one of which is put into a place of usefulness, and wear and tear, a place where its use is so constant that you

think it will very soon be worn out and have to be replaced, and the other is left upon the ground or in some damp place quietly by itself. The unthoughtful would say, that is the piece that will last, but those of us who are observing know that iron will rust out as well as wear out, and thus when the two pieces of iron are brought together in the daily wear and tear of life they are kept bright and useful, and it is when left in its solitude that the unused piece of iron gradually rusts and decays. And so it is with human life, the man in the busy world, in the battle of life, is the man who is kept bright by his activity, but the man who is isolated in his country town in the back woods, off on the mountain trail alone, is the man who is the victim of melancholia and insanity. I remember when a young man when I first learned that there were more inmates of the insane asylum from the country districts than from the great bustling towns, I was very much astonished, but so it is. It is life, it is activity, it is the rubbing of mind against mind that makes a man's life, highest, noblest and truest, and it is isolation that decays. It is so with childhood, it is so with middle life, it is true of old age. What is the difference between the child of four and the child of eight? You have simply to come into his presence to have your answer. The child of four—what are his words? I, me, my, Georgie's, is, mine, me. The child is in the family surrounded by loving friends, but he is isolated by his own selfishness. Father, mother and all around him are looked upon simply as ministering to his wants. If he stays there he has the misfortune to be rusting instead of growing; decaying by the false affection of those around him by keeping isolated. But at length the child is pushed out, goes to school and is brought in contact with other minds, with other wills, and with other fists, perhaps, and that child grows in the conflict. He learns very soon that if he would enter into the child life of those around him he must accomodate himself to them. He cannot play without playing as others do; he cannot study without studying as others do. And so we find that although his feet may be trodden, his garments may be torn, his nose may be bloodied, his hair may be pulled, he is growing into the child life of those around him. Before he is eight that same child that was so perfectly satisfied with me, and my and I, has to be tied to the bed post or gate post to be kept from running away from home. That is the natural development.

We recognize more clearly in middle life what we do not in the child, that isolation means rust and decay. I remember reading some years ago a story that made such an impression upon me that I have never forgotten it. It was the story of a certain duchess at a European court who had attracted attention by the singularity of the breast pin which she wore,—a large pin studded with diamonds and having in the center not a larger diamond but a bent brass pin. By those who knew what that meant it was told as follows: Her husband fell under the suspicion of the emperor, was thrown into a dungeon, dark and isolated. Night and day, week after week, month after month, year in and year out he stayed there. It is the severest punishment that can be inflicted upon a man, that slow isolation, the mind left to gnaw upon itself; hope gone, occupation gone, the eternal canker of an active mind

turned in upon itself, and this man found it so. He felt he was losing his mind, he was going mad, and one day in his desperation he plucked a pin from his garments and threw it out into the darkness, and then went to searching for it. Days, sometimes weeks, he searched before he found the pin. But he had an occupation, there was something to keep the attention of his mind, something to take his memory away from the dreadful situation in which he was placed. He was there for many years and that was his one occupation, the one thing that prevented him from going mad. At last the door was opened and the jailer said, "You are free by the act of the emperor." He was on his hands and knees searching for something, and he said, "Wait a minute, I must find something." Finding the pin was more important than freedom for him because he knew the value of that pin, the value that it had proved itself to him. And when she who loved him best heard the story she looked upon that bent brass pin as the most precious jewel that she could possibly own, for it had saved to her her husband, saved him from being a maniac.

We laugh sometimes at the way old age indulges in reminiscence. We say, "Oh, yes, he is telling the old stories over again, he is telling about his boyhood and boyhood companions." Do we ever stop to think that this is old age's protest against isolation and rust? The boys are gone whom he played with, the men whom he labored with are nearly all gone or live in distant parts of the country perhaps. He cannot have the old companions to brighten his mind, but he will at least make use of the old memories, and tell the old stories over again, fight the old battles over again, do the noble work over again, and so live again in the past. Thus iron sharpeneth iron, but there is a power in isolation to decay.

Nothing shows the advance in our benevolent institutions more than this. That they have come to recognize now that the old policy of shutting a man up because he was not like other men, like his fellows, no matter in what respect he was unlike, was the worst possible policy to follow, the worst possible use you could make of the man. So they have learned that it is not isolation, but companionship that helps a man to grow out of himself into something better and nobler, and it is this new policy that is making our institutions our pride. There is a power in companionship to brighten the mind, to brighten the heart and to brighten life.

I remember a man who was very much given to talking to himself, and somebody said to him one day, "My dear sir, why is it that you talk so much to yourself?" "Well," he said, "I have two reasons, one is I like to hear a sensible man talk, and the other is, I like to talk to a sensible man". Well, now, that is all very well for a sensible man, a witty man to say, and I have no doubt that a man who is capable of originating that answer was capable in his solitude, in his meditations, of drawing from the things in his own mind, in his own life, much that would help to brighten it, but it has its limitations even there. If you and I were sitting in the train, or in the doctor's private office and I told you the story that I told just now, what would you do? Why, you would cap it with another, and after you got

through the doctor would cap it with another story, in other words minds rub against minds, and story calls forth story. The story that you had forgotten years ago, a like story draws to your mind and brings it out, and tends to make you a brighter mind in company because you have brought it out. Not only does story bring forth story, but truth brings forth truth, and that is why, I take it, that those who are engaged in work among the feeble-minded come together here in convention. Each mind brings his own truth, and each mind's truth stimulates another to bring forth its truth, perhaps a forgotten one, and so mind is rubbed against mind even as iron is rubbed against iron, and the result is the same. But it is not necessary that the two minds that are rubbed against each other should both be bright minds. Ignorance and weakness are helped by a bright mind. But there is many a teacher that has a new truth opened to him, a new vista of knowledge revealed to him through the question of some dull pupil who cannot understand what has been said to him, who persists in looking at it from a different standpoint than the teacher and who by and by wakes the teacher up to the fact that there is another standpoint, another side to the truth. Although the boy is wrong in his conclusion, yet, after all he is right in realizing that the truth has more than one side to it. Questions awaken long slumbering and forgotten answers and the teacher is wiser because of the answer he has been required to make.

Let me tell you a little story on myself. Sometime ago, I had the fortune or misfortune, to publish a little book. In a small company the merits of the book were being discussed, and one person said, "Why, of course it is a good book, he had to write a good book. Hasn't he had his pupils for years writing lectures and papers for him on that subject?"

Well, there was truth in the answer. He is a pretty poor teacher who does not learn from his pupils. He is a pretty poor teacher who, when a pupil has got hold of a half truth and thinks it is the whole truth, is not able to supply the other half. Even although the other half may be true, the teacher himself probably had never thought of it before until the boy or the girl insisted that his or her half was the whole truth. It is not the teacher who alone brings brightness—it is not the teacher who checks the boy, who snaps up the girl, who stifles the investigator, who is cultivating brightness, but it is the teacher who recognizes that every new pupil presents a new problem who is the real teacher and who is led thereby to adopt larger and better pedagogical methods.

Again there is a power in association and companionship to enlarge life. We think of the mechanical inventions and contrivances of this age usually on the mechanical side, but you cannot separate the mechanical from the intellectual and moral result that flows from it. Think of the wonderful inventions which have brought people together—the railroad, the steamboat, the telegraph, the telephone and the rural delivery which is just coming in. What does it mean? It means the drawing in of the great boundaries of the world, the drawing together of the hearts and minds of the people. So it is in this larger sense that the increased use of the mail, the enlargement

of the rural delivery, the establishment of the rural telephone, have enchanced not only the price of the land, the price of the farms, but have made a perceptible difference in the farmer's boy and girl in regard to their willingness to stay at home. They have created new interests for the farm-house and the fireside, in other words have made the life of the farmer just that much larger by his being brought in contact with his fellow men, for the largeness of his life is measured by his interests. And the highest interests that can come into life are interests in humanity—men and women. But this interest, this essential companionship which is the greatest power, is always personal. The newspaper has its place, the book has its place, but after all the thing that has the most power in the world, even although it be imperfect physically or mentally, is the thing we call a person.

Why, a little child who apparently knows nothing, thinks nothing, and says nothing comes into a family and the whole family is changed by the advent of the little youngster. One crying baby on a train will set on edge the teeth of all the passengers in the car, but a smiling, crowing baby will even induce a crabbed old bachelor to lay down his paper and see what the child is crowing about. It is the person that counts, it is personality that tells.

I remember one summer in the Adirondacks there was one man whose presence changed the atmosphere of every room he came into and of every group he joined. You saw the result at once. There was a higher tone to the conversation, there was a more manly and more spiritual accent given to commonplace things. Now the man was not a great speaker. I think during the whole summer he only opened his mouth once to speak in public. He was one who was not busy about other people's things. He went along quietly in his own way, but he was always approachable, he was always ready to join in a conversation when he was asked to do so. It was not what the man said, it was what the man did, it was what the man was. It was character, it was the unconscious education of his personality and presence, and that is the strongest of all powers in education.

I remember reading not long ago of the testimony of nearly one thousand persons in regard to what had been the greatest influence in their lives. At what time of their lives, and what was the character of the influence? These were the questions asked. There were over a thousand answers. The answers were from intelligent persons, from young men and women who were studying to be teachers, members of normal schools, etc. Now it is a striking thing that these answers which came from secular schools, from those who were being educated to be secular teachers, said that the greatest thing that had come into their lives to mold and shape them, was the thing that all public educators tell us must be kept out of the public schools. It was religion, not any book, but religion in character. The testimony of the minority was so small that I have forgotten it. The testimony of the majority was the influence of their teachers. In every case it was character, and in nearly every case it was the Christian character, or Christian moral principles. And that the time that this influence entered into

their lives was always between the ages of fourteen and eighteen, the time when in God's providence the nature of the boy or girl becomes plastic again, even as it was in their childhood, and gives us educators a second chance to do our duty where perhaps we had not done it before. But here again the power to enlarge life which comes from personality and companionship, does not depend upon both personalities being great or particularly bright.

Some of you who are here remember a few years ago there came into your presence a Japanese gentlemen so mild, so gentle, so modest, so retiring, that you looked at him a second time almost to be sure that he was not a young lady instead of a gentleman. What was it that brought him here? What kept him here for weeks, and then sent him east to visit other institutions of a like character? It was this. Some years before at the time of the great earthquake on the eastern coast of Japan, he had heard that of the hundreds and thousands of orphan children that were left, there were places found for the boys and women, but nobody wanted the little girls. So he went down there, and out of his Christian love, rescued those children from something worse than death. He started the first refuge for little girls in the empire of Japan. There were one or two boys in the group and as he was teaching them he saw that the boys had not minds like some of their companions. They were feeble-minded, and like a true teacher, they drew his interest and touched his heart as all the rest of the school did not. He had heard that in America there were institutions for educating the feeble-minded. He had heard that there was one here in Faribault, and he appealed to his bishop to write to me and ask if I would give him hospitality that he might come and study it. I felt proud of the privilege of meeting a man on such an errand, and of offering hospitality that would help introduce the same good work that was being done here into the empire of Japan.

There was an example of the true teacher whose chief interest was in the pupil the most helpless, to whom money counted for nothing, time counted for nothing, exertion counted for nothing, if he could only help a poor struggling soul who had come into the world without the advantages of his playmates. While here he gave rather an amusing indication of that love for others possessed by the Greatest Teacher. During his stay he visited all the different church localities in the interests of his mission, but so exceedingly bashful was he, so unspeakably diffident was he that it was impossible for him to speak, and never except under excitement did he ever get over that dreadful stage fright. I went with him one night to St. Mary's. I told him that if he would only come along and show himself I would do the speaking. After a good deal of urging he went with me and when the time came and the bell rang for the young ladies to come into the assembly room, he hid himself behind a curtain. He said "It is impossible, it is impossible, I cannot go." I put my arm around him and said, "You must go, now you are here, you must come and sit on the platform. You can tell them you cannot speak and then sit down, and I will do the speaking." Well, we got him in and got him on the platform, and he got up and

said in two or three beautiful sentences that it was utterly impossible for him to speak English, that they could see he could not do it and must sit down. So I made the address and as I finished to my perfect astonishment the man who said he could not talk, could not say anything, walked right straight forward and began a most animated address. In a moment it flashed over me that there was nothing in my address about the feeble-minded, and he was supplying the deficiency. For two or three minutes he stood there speaking when suddenly it occurred to him what he was doing, and he sat down.

I think that that man sacrificed as much to stand up there and speak to those people,—overcame as much as his fellow soldiers and sailors are sacrificing today for the sake of their country. I know that he grew in everything that belongs to true manhood, and a true son of God. All that he labored and suffered and worked for he gave up for the love of those little ones. There is no law truer than this, that that man most truly helps himself who sacrifices the most to help his brother. I do not pity those who labor among the weakest and lowest. I thank God that he has given them the ability to do it, which he has not given to every soul.

Now what has all this to do with this assembly room? Much in every way. For this room stands for companionship, it is built for companionship, all its accomodations are made with the idea of bringing people together mind against mind, heart against heart, and soul against soul. If the feeble and outcast and helpless are to be helped the well must come together and put their arms around them and help them up. Leave them alone and they are as children. The wolf children we read about in India that are lost in the forest and adopted by some wolf become utterly inhuman brutes like those with whom they live. And as that companionship degrades so the companionship of the pure and good and self-sacrificing is bound to elevate. It is God's law and happy is the man who recognizes it and lives up to it.

This hall is to be devoted to recreation. The time was when recreation was condemned. But re-creation is what we are all looking for. Re-creation of nerve; re-creation of muscle; re-creation of health that we may turn back to our labor and do it in a larger and nobler way. And we have learned also that play may be educational, and that the little operetta that is to come on here tonight may be even more educational than the most didactic instruction you could possibly give. Hamlet said, "The play is the thing". There were no schools for the feeble-minded then, but I take it that he spoke wiser than he knew. For the child who plays grows into a larger intelligence, a wider intelligence, a quicker intelligence than he could get in any other way. I remember one of the best Shakespearean teachers I ever met, never put a subject upon the stage that he did not carefully cast the characters so that the foward, self confident boy was put into some quiet, gentle, retiring part and the diffident and self distrustful would be put on as a roaring, tearing character where he had to come out of himself. I saw with my own eyes the effect of a few months of that sort of training, the educational value of the play upon those who entered into it.

But not only does this room bring together those who overcome physical infirmities, and those to be helped in their mental standing, but it is also recognized that everyone who comes in here has a soul. There is no man living who has not some of God in him. The account we read in the first chapters of Genesis, where the Almighty is pictured as a man taking a handful of dust and breathing into it the breath of life is a parable, it is true. But we know from our own experience and the history of mankind shows that every man has some of God in him, whether that first account be history or not. And as teachers we recognize that no matter how ill a boy may be in his conduct, how disappointing and discouraging he may be in his development, that notwithstanding back of it all there is that something which came from God, and which if we only know how to appeal to it, is going to grow with the rest of his nature toward that God likeness for which he was created. And so prayerfully, hopefully and earnestly you are to come into this room, week after week, month after month, working to build up that moral, spiritual and intellectual being for whose good this hall has been erected, looking for that larger life in the eternal future where there is no rust or decay, looking for that larger strength where in the eternal future there is no weakness to overtake it, looking for that larger truth which comes from God, and whether it be building or whether it be teaching, or whether it be worship, let us labor in our might, and we shall grow and the souls with whom we labor shall grow, and God shall have the praise.

Dr. Rogers: This closes the first part of the program, and we will formally announce that this hall is open to the public. If you will remain in your seats a few moments we will have the second part, an operetta in three acts, "The Pixies' Triumph", given by the children of the school department.

FRIDAY, JUNE 24, 3:00 P. M.

President Johnstone: The meeting will please come to order. At the close of our meeting yesterday there was possibly a desire to further discuss the papers read, particularly Dr. Lincoln's paper, on a border line case. Is it your pleasure to continue that discussion? If not, we will continue our regular programme. A paper, "A Class in Nature Study," by Miss Helen Knight, of Fayville, Massachusetts, was read by Dr. Mogridge.

The next paper, "Physical Training as an Educational Factor", by Mrs. Lillian Murdock of Glenwood, Iowa, was read by the author.

President Johnstone: We would like to hear something on physical culture. That is something that interests us all very much, I am sure. Miss LaSelle, can't we hear from you on the subject of physical culture?

Miss LaSelle: I believe that I have nothing to say.

President Johnstone: If there is nothing further we will proceed with our programme. The next paper is "Entertainments", by Miss Alice F. Morrison, of Vineland, which will be read by Mrs. Johnstone.

The next paper is "Practical Textile Work for Special Classes in Cities", by Miss Ada M. Fitts, Boston. This paper will be read by Miss Stewart. Miss Bancroft's paper did not come.

President Johnstone: Is there anything further? The next number on the programme is "Case Histories", by Mrs. Elsie Seguin, of Orange, N. J.

Dr. Rogers: These case histories were prepared for the exhibit at St. Louis. It seemed impracticable to get them printed in proper shape and we had to abandon the idea of their use. I will read one which is of general interest because of the very nice method that has been followed in carrying out the history:

Case 1, "Mentally Deficient Children." This is perhaps typical of the other three cases, all varying in detail.

President Johnstone: This paper is now open for discussion.

Miss McLean: Does that take the place of what we call the monthly report?

Dr. Rogers: No, it is a complete history from the school, from the time of admission until the present time.

President Johnstone: The evening meeting of the association will be held at eight o'clock in this room. Before the association adjourns there will be a business meeting which will be of special interest only to members of the association. If any of the others wish to remain it will be all right, but the balance of this meeting will be merely a business meeting of the association.

President Johnstone: Dr. Wilmarth, is the committee on time and place ready to report?

Dr. Wilmarth: I would like a little more time, if you please.

President Johnstone: Dr. Murdoch, are you ready with the report of the committee on organization?

Dr. Wilmarth: Mr. Chairman, the committee on time and place beg to report that they would recommend the acceptance of Mr. Johnntone's invitation to meet at Vineland, the time to be arranged by the secretary after conferring with Mr. Johnstone, and the notice of such date to be sent out in due time by the secretary.

President Johnstone: You have heard the report of the committee, what is you pleasure?

Dr. Murdoch: I move that the report be accepted.

Dr. Rogers: I second the motion.

President Johnstone: It is moved and seconded that the report of the committee be adopted. All in favor will signify their assent by saying aye, contrary no. The motion is carried.

I wish to express my appreciation of the action of the committee in allowing the association to come to the training school.

Dr. Wilmarth: There has been a wish expressed in times past that the meetings be held in the fall instead of in the spring, but it appears to me that the convenience of the superintendent should be consulted. It would, of course, be impossible for the committee to set a date—an arbitrary date—it might be at a time when it would be very inconvenient for the superintendent, and we thought it might be more agreeable to all parties to leave the matter open for future decision.

President Johnston: It is putting a good deal of responsibility on a man to suggest a meeting in the fall, when this association has met in the spring for years.

Dr. Mogridge: There were certain dates on which you were quite likely to be busy.

Dr. Johnstone: We are now ready for the report of the committee on organization.

Dr. Murdoch: Mr. President, I have the following report to make for the committee on organization: For president, Dr. A. H. Beaton, Orillia, Canada; for vice-president, Dr. George M. Mogridge, Glenwood; for secretary and treasurer, Dr. A. C. Rogers, Faribault; for reporter, Mrs. Barrows; for the Journal, editor-in-chief, Dr. A. C. Rogers; for associate editors, the re-appointment of Drs. Fernald, Wilmarth, Barr and Mr. Johnstone, and to take the place made vacant by the deceased, Dr. Powell, we suggest the name of Dr. Mogridge. We also beg leave to suggest the addition of one more to this committee of associate editors, by adding the name of Dr. Wylie. In recognition of Dr. Wylie's work we consider that his name ought to be added to the list of associate editors.

President Johnstone: You have heard the report of the committee on organization. What is your pleasure?

Dr. Wilmarth: I move, Mr. President, that the report be accepted and that the secretary cast the ballot of the association.

President Johnstone: It is moved and seconded that the report of the committee be accepted, and that the secretary be instructed to cast the vote of the association for the gentlemen named in their report of the committee for the various offices. Are you ready for the question? Motion carried. It is so ordered.

Dr. Rogers: Mr. Chairman, Dr. Bullard expected to be here at this time but was unable to come. I received a letter from him last night in which he urged upon the members present the necessity of having those etiological reports sent in. You will remember that there were forms gotten out, and Dr. Bullard was chairman of the committee that was to prepare the report on the reports. The reports would be sent in from the different institutions and then the committee were to make deductions from the reports and present their conclusions. Dr. Bullard says that none of them have been returned to him, and that it is quite important that these should be filled out and sent in to him. Dr. Bullard is a very energetic scientist and I think we should uphold him in this work. I am exceedingly glad that he has the persistence to keep right after us on the necessity of having these sent in. Those of you that have not the reports may get them by dropping a line to Dr. W. N. Bullard, Boston, Massachusetts, who will furnish you the blanks.

Dr. Mogridge: I think perhaps that one reason that he has not received the blanks is that it is almost impossible to fill them out properly. We can not give the history he wants.

President Johnstone: I would like to state that Dr. Bullard made such a strong plea that something of the kind be done last year, that I really

wanted to make them out. I thought I was the only man in the association who had not done it, and I was kind of ashamed of it. I made this arrangement with my clerk, and she has only one or two cases filled out in this way, but will, I hope by the next association meeting have a number. I have a clerk something like Dr. Rogers has who knows the parents better than I do. She knows which parents may be approached upon the line of those questions—the idea that the children might be benefited in some way in their training by more definite knowledge on this matter, and she interviews the mother when she comes to see her child. She goes right in and says, "Mrs. So and So, we are trying to find out something regarding feeble-mindedness. If you will give us this information, it will possibly help your child either directly or indirectly, and will certainly help the whole cause along". I think she had but two cases when I left. I let it go till the last minute, but in the above mentioned case the parents gave her some facts which belied the blanks that had been given her by these people. You and I won't do anything with it probably, but I think if you turned it over to a clerk or some one whose business it is, they will do something of that kind. I think, too, that Dr. Bullard ought to be encouraged in the matter and will work to that end.

Dr. Mogridge: When it is done accurately and with reasonable care it will teach a lesson of no little value.

Dr. Wilmarth: It strikes me that a great many of these questions can only be answered by an interview with the parents, and with intelligent parents at that, and consequently a great many blanks can never be filled out completely.

President Johnstone: Is there anything further to come before the meeting?

At this point the paper of Dr. J. C. Carson, of Syracuse, New York, "A Review of Legislation for Feeble-Minded," was read by Dr. Rogers.

President Johnstone: If there is nothing further we will adjourn until eight o'clock this evening.

FRIDAY, JUNE 24, 8:00 P. M.

At the evening session President E. R. Johnstone read his address, which was followed by a stereopticon lecture by J. Moorhead Murdoch, M. D., of Polk, Pennsylvania, on "Some Types of the Feeble-Minded."

President Johnstone: Is there any further discussion? If not, I believe we are to have some further entertainment by the school.

A short musical program was given by the pupils of the training department.

President Johnstone: Those of us who are visiting here have greatly enjoyed every minute of the time. They have taken such good care of us that I feel much like the colored boy who sang, "Every day will be Christmas by and by". Every day that we have spent with Dr. Rogers has certainly been "Christmas".

SATURDAY, JUNE 25

An excursion to Cannon Lake where the association was entertained at their cottage by Dr. and Mrs. Rogers. A ride on the launch was greatly enjoyed.

TREASURER'S REPORT, 1903-1904.

Cash Dr.

Balance on hand May, 1903	$ 174.32
To Cash Dues, 1901	5.00
" " " 1902	15.00
" " " 1903	70.00
" " " 1904	5.00
" " Sale of Journals and 12 Decennial Volumes	141.41
" " Advertising	8.00
" " Units, installation and care of collective exhibit at St. Louis	410.00
	828.73

Cash Cr.

By Stock and Envelopes for Journal of Psycho-Asthenics	$ 56.13
" Binding of Journals	17.00
" Cuts and Engravings for Journal	46.91
" Postage	12.65
" Stenographic Work	27.50
" Type	.58
" Telegram and express on cuts	.90
" Expenses Acc't Collective Exhibit, St. Louis	561.00
	$ 722.67
Balance on hand	106.06
	$ 828.73

REPORT ON EXHIBIT

Your committee organized with E. R. Johnstone, chairman; Dr. A. C. Rogers, and A. R. R. Wylie, secretaries.

Mr. Wylie prepared the scheme for the exhibit which was adopted and published by the Department of Education and Social Economy.

The unit basis of exhibit was the swinging frame cabinet with show case—33 inches wide and 6 feet high. These cases contain fifteen swinging frames suspended back of a glass front, making a total of thirty-three mounts on frames and back of cabinet.

The show cases and the shelving below were small and of little value to us. The partition walls to the height of nine feet were available for exhibits, using the three feet above the cabinet.

Unfortunately only a few of the institutions found themselves able to take part in the exhibit, and the final space secured was large enough for nine units and an aisle in length and four units in width, or a total of thirteen units.

In order to secure more wall space protected by glass, we had a special

case built at a cost of $75 to occupy the place of three units and to extend the full height of the partition, viz. nine feet.

The Craig Colony exhibit occupied a portion of the floor space in front of our case.

The following institutions are represented as regular contributors and exhibitors:

Pennsylvania, Elwyn; two units	$ 100.00
Pennsylvania, Polk; one unit	50.00
Indiana, two units	100.00
Wisconsin, one unit	50.00
Minnesota, two units	100.00
New Jersey Training School for Feeble-Minded Boys and Girls, one unit.	50.00
Dr. W. H. C. Smith, one unit	50.00
Mrs. Elsie M. Seguin, one unit	50.00
Miss Fannie Compton, one unit	50.00

New York sent photographs, as did also Massachusetts, but did not subscribe.

Dr. Spratling, of Craig Colony, sent $30.00.

Nazareth School at Kalamazoo, Mich. has a unit case in our space, and they have been asked to contribute $25.00, but have not been heard from.

JOURNAL OF PSYCHO-ASTHENICS

Devoted to the

Care, Training and Treatment of the Feeble-Minded and of the Epileptic.

Volume 9-10

1904/1906

(Volume 10, Nos. 1–3 were numbered Volume 9, Nos. 5–7)

Reprinted with the permission of
The American Association on Mental Deficiency, Inc.

JOHNSON REPRINT CORPORATION
111 Fifth Avenue, New York, N. Y. 10003

JOHNSON REPRINT COMPANY LIMITED
Berkeley Square House, London, W. 1

First reprinting, 1964, Johnson Reprint Corporation

PRINTED IN THE UNITED STATES OF AMERICA

CONTENTS FOR SEPTEMBER, 1904.

ORIGINAL ARTICLES:

Experimental Studies in Mental Deficiency: Three Cases of Imbecility (Mongolian) and Six Cases of Feeble-Mindedness, F. Kuhlman, Clark University - - - - 1

Discussion - - - - - - - - 7

Practical Textile Work For Feeble-Minded Children, Miss Ada M. Fitts, Boston, Mass. - - - - - - 8

Discussion - - - - - - - - 9

Dr. Francis Marion Powell, A. C. Rogers, M. D., Faribault, Minn. - - - - - - - - - 15

Editorial - - - - - - - - 19

Notes - - - - - - - - - 21

Book Review - - - - - - - - 22

REPORTS FROM STATES:

New York, (Randall's Island) - - - - - - 23

Maine, New Hampshire, Rhode Island, Kentucky, Iowa 26

CONTENTS FOR DECEMBER, 1904.

ORIGINAL ARTICLES:

Classification of Mental Defectives, Martin W. Barr, M. D., Elwyn, Pa. - - - - - - - - 29

The Value of Institution Meetings, C. Emerson Nash, Vineland, N. J. - - - - - - - - 39

Discussion - - - - - - - - - 44

A Border-Line Case—on the Right Side of the Line, David F. Lincoln, M. D., Boston Mass. - - - - - 47

Discussion - - - - - - - - - 49

Light Through Broken Windows, Miss Margaret Bancroft, Haddonfield, N. J. - - - - - - - 54

EDITORIAL:

Dr. Barr's New Book - - - - - - - 59

A Case of Thyroid Treatment - - - - - - 62

Notes - - - - - - - - - - 62

Book Review:

General Paresis—Practical and Clinical, by Robert Howland Chase, A. M., M. D. 63

The Treatment of Tabetic Ataxia by Means of Systematic Exercise, by Dr. H. S. Frenkel, translated by Dr. Freyberger, M. D., ... 64

CONTENTS FOR MARCH, 1905.

Original Articles:

Dr. Gustavus Adolphus Doren, A. C. Rogers, M. D., Faribault, Minn. 66

(Frontispiece)

A Class in Nature Study, Helen G. Knight, Fayville, Mass. 72

Discussion 73

Physical Training as an Educational Factor, Mrs. Lillian Murdock, Glenwood, Ia, ... 78

Editorial:

Honors to Dr. W. W. Ireland 83

The Training School 84

Notes: 86

CONTENTS FOR JUNE, 1905.

Original Articles:

Is Asexualization Ever Justifiable In The Case Of Imbecile Children, S. D. Risley, M. D., Philadelphia 92

Systematic Physical Training For The Mentally Deficient, Miss A. Gertrude Jacob, Orange, N. J. 98

Discussion, ... 107

Hydrotherapy In The Treatment of Feeble-Minded Children, Louise Patterson, M. D., Vineland, N. J. - - - 112
Discussion - - - - - - - - 116
In Memoriam—Dr. G. A. Doren - - - - 118
Minutes—Vineland, 1905 - - - - - - 120
Treasurer's Report, 1904-05. - - - - - 125
Editorial
Sterilization of the Unfit - - - - - 127
Asexualization—Attitude of Europeans - - - 128
Results of Asexualization - - - - - 129

CONTENTS FOR SEPTEMBER-DECEMBER, 1905.

ORIGINAL ARTICLES:

Speech Training as a Factor in the Development of the Feeble Mind, Dr. G. Hudson-Makuen, Philadelphia, Pa. - - - - - - - - - - - 136
Discussion - - - - - - - 140
Insanity at Puberty, Charles W. Burr, M. D., Philadelphia, Pa. - - - - - - - - - - - 150
Special Classes for Defectives in Reform Schools, Arthur C. Jelly, M. D., Boston, Mass. - - - - 158
The Importance of Taking the Temperature of all the Feeble-Minded in our Institution at Regular Intervals, Charles Bernstein, M. D., Rome, N. Y. - - - - 164
Discussion - - - - - - - - 165
A Review of Legislation in Relation to the Feeble-Minded and Epileptic in 1904, J. C. Carson, M. D., Syracuse, N. Y. - - - - - - - - - - 167
Editorial
School-Room Suggestions - - - - - - - - 169
Notes Concerning care of Epileptics - - - - - - 170

CONTENTS FOR MARCH, 1906.

ORIGINAL ARTICLES:

The Eyes of the Feeble-Minded, James Thorington, M. D., Philadelphia, Pa., - - - - - - 177

Discussion - - - - - - - - - 183

Small-Pox in an Institution, F. R. Huxley, M. D., Faribault, Minn. - - - - - - - - 190

Selected:

The Employment of the Feeble-Minded, "After-Care" in Birmingham, Mrs. Hume Pinsent, - - - 184

Editorial

Contagious Diseases in Institution Life, - - - 195

Notes and Abstracts - - - - - - 198

Book Notices

Le Classification Des Enfants Anormaux, Dr. O. Decroly, Gand, - - - - - - - - 199

The Education of Defective Children, S. P. Goodhart, M- D., 200

CONTENTS FOR JUNE, 1906.

ORIGINAL ARTICLES:

To Whom May the Term, Feeble-Minded, Be Applied? A. W. Wilmarth, M. D., Chippewa Falls, Wisconsin - - - 203

The Psychic Treatment of Mental Defectives, J. M. Murdoch, M. D., Polk, Penn. . - - - - - - - - 220

The Segregation and Permanent Detention of the Feeble-Minded. A. Johnson, M. D., Beatrice, Nebraska - - 230

Discussions - - - . - - - . - - - - 207-223

Minutes - - . - - - - - - - - - - - 234

DR. FRANCIS MARION POWELL

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX SEPTEMBER, 1904 No. 1

ORIGINAL ARTICLES.

EXPERIMENTAL STUDIES IN MENTAL DEFICIENCY: THREE CASES OF IMBECILITY (MONGOLIAN) AND SIX CASES OF FEEBLE-MINDEDNESS.*

F. KUHLMANN, CLARK UNIVERSITY.

THE present studies were limited to nine cases, the object being to make more thorough tests on a few cases rather than less extensive ones on many cases. The total time devoted to them, after two weeks of preliminary experimenting, was about five hours a day for four days of the week, and continued for four consecutive months. The different tests made will be described as I proceed.

The memory test on feeble-minded by Galton, Johnson, Lobsien, and Wylie have nearly all been memory *span* tests. Their results give a very large variation as regards the number of things that could be held in mind for a brief, or no interval after they had been once seen or heard. From some of the general principles of psychology, and also from our knowledge of the general characteristics of feeble-mindedness their large variations in the memory span were, for the most part to be expected; they are so largely dependent upon the difference in the methods of procedure that have been followed. The main conditions, probably, upon which the memory span depends, aside from the general grade, and individual peculiarities of the person, are as follows: (1) The nature of the material, the stimulus that is used. Some things can be remembered better than others, for several different reasons. (2) The method followed in having the subject indicate

*A more detailed statement of the results and discussions of this study is published in the American Journal of Psychology, July, 1904.

what he remembered; the recall, and the recognition methods give widely different results. In the one the subject must actively recall and name or write down the name or other symbol of the things he saw or heard. In the other, the things first presented to him are presented again, mixed up with a number of others, and the subject has only to discriminate, to recognize which were presented alone, at first. The latter is a much easier task. (3) The degree of effort and attention employed both in observing the things presented, and in recalling, or recognizing them afterwards. Special precautions must be taken by the experimenter to keep this degree maximum and uniform. All three of these general conditions in the method should be borne in mind in comparing the results on the memory span of feeble-minded and normals. The last indicates, further, that results on the memory span of feeble-minded must remain far from being a measure of their *memory*, pure and simple; they may be more a measure of their poor attention and little effort in observing and in remembering.

Again the memory *span* test is not a pure memory test at all with any class of subjects. It is a test on the span of consciousness, and need not necessarily give much indication of the subject's memory for things over a long interval of time.

The demonstration of the truth of a number of these considerations was a part of the results of the various tests made. The memory tests on the nine cases differed from previous ones mainly in the observance of the third condition named. The tests were given to each case individually, and every effort, on the part of the experimenter, towards encouragement and maximum efficiency was constantly employed. One real memory test was made. They were called upon to name ten simple object pictures with which they had become thoroughly familiar in previous tests of another sort. Then after an interval of five weeks during which they saw none of the pictures they were again given several trials on different days at recalling from memory. On the general average they recalled correctly in the first tests 81 per cent of the pictures, and 67 per cent correctly after the five weeks' interval, a loss of 14 per cent. In the rough, the memory loss during the interval was less for the four cases that stood lowest in general grade of development. But they also stood lowest in the percentage correctly recalled in the first place. It is possible that we have in this relation simply a demonstration of the general principle in psychology according to which that part of our memory is least permanent which has been committed under the highest pressure of effort. The poorer cases forgot less of what they had from the first remembered because they remembered in the beginning only so much as could be done with little effort.

In a memory span test given the same ten pictures were always used. Two, three, four, or five pictures were shown at a time, and the case made to name them twice over. Those shown were then mixed with the others, of the ten always used and the child asked to pick out those shown. The general average percentage of the number of pictures correctly picked out are as follows:

Two pictures shown - - -	78 per cent
Three pictures shown - - -	58 per cent
Four pictures shown - - -	38 per cent
Five pictures shown - - -	32 per cent

These figures are corrected for the chance error, since they were picked from so small a number as ten; thus for two pictures shown 20 per cent is deducted, for three pictures shown, 30 per cent is deducted, etc. The general average for the four cases lowest in general developement was 44 per cent, for the five higher grades, 58 per cent.

The results further showed that there had been decided memory preferences for the ten pictures used; they remembered some much better than others. In the great majority of instances the picture that was not picked out when it had been shown was also the one that was least picked out when it had not been shown. These memory preferences were much more marked with the lower grade cases. They are expressions of differences in interest in, and attention to the different pictures, and the dependence of their degree upon the general grade of the case indicates further the lesser ability on the part of the feeble-minded to voluntarily attend to and remember things that are relatively uninteresting.

One test was made for the sole purpose of determining the nature of their practice curve in a given task. Other tests for different purposes also showed practice effect, which will be considered in connection with the statement of the other results of those tests. In the practice test the object was that of the psychological analysis of the factors that entered in determining the nature of their progress in the given kind of work, granted that it must be different from what it is with normals. The test was that of throwing at a target with a tennis ball. Constant efforts to arouse rivalry, and encouragement to hit the centre were employed. Each case threw twenty times a day, and the experiment was continued for seven weeks. Valuing the different rings of the target from 5 to 0, from centre outward, the average number of points made from first to seventh week were:

Weeks	1st	2nd	3rd	4th	5th	6th	7th
	38.4	39.7	36.1	35.1	39.8	37.6	38.9

These changes in their ability to hit the centre were for the most part due to changes in their interest in the task and in their effort put into it. General observation and the known changes in their interests prove the correctness of this interpretation. During the fifth week a visitor was present to assist in the tests. The presence of a stranger seemed to improve their efforts. On the last day of the fifth week a maximum attempt was made to further arouse their interest and rivalry in hitting the centre. Correlating the results with these changes in the conditions of the test gives the following averages in points made:

First and second weeks - - - -	39.4
Third and fourth weeks - - - -	35.5
First three days of fifth week - - -	38.8
Last day of fifth week - - - -	42.9

Sixth week - - - - - - -	37.6
Seventh week - - - - - -	38.9

Most of the cases showed a considerable constant error; they constantly hit more in one half of the target than in the other. This constant error was less for the last three weeks of the test than it was for the first. This improvement is the result of an unconscious, self-adjustment.

Practice effect was further shown in their throwing becoming more regular. During the last three weeks of the test as compared with the first three weeks they hit the centre less, but they also hit outside all rings, and the centre rings of the target less. The following are the average figures on the number of times the different rings of the target were hit for the first and the last three weeks:

	1st 3 weeks	Last 3 weeks
0 outside target - - -	66.9	67.7
1 inside ring - - -	39.1	32.3
2 second outer ring - -	41.3	44.3
3 third outer ring - -	42.8	45.2
4 fourth outer ring - -	29.2	33.0
5 bull's eye ring - -	17.1	13.1

The exception for the O-hits is due to the very low record during the last three weeks of one case, due to his becoming very tired of the task and his no longer throwing swift enough to hit the target at all.

Another test that was partly intended to determine their ability to gain in practice consisted of tapping with fore-finger and thumb on a reaction key in unison with the beats of a metronome set at one-half second, in the first part, and at one second beats in the last part of the test. Five one minute series of tapping were given each case a day, and the first part continued for six days, the second part for ten days. Grouping their tapping in the minute series into five-second intervals the average percentages of the number of times the correct number of taps were made for the different five-second intervals are:

54.4, for 1st 3 days of first part, metronome beating, ½ seconds
52.8, for 2nd 3 " " " " "
60.4, for 1st day of second " " " whole seconds
50.5 for 2nd " " " " " "

Thus their ability to follow the metronome decreased at once. There is no question but that getting tired of the task is the cause of this. They do best at the beginning of the second part when, presumably, a new arousal of interest goes with the introduced novelty in the procedure. But they fall lowest immediately after that. Previous to this test their natural rate and their tendency to vary from this rate had been determined. Comparison of results shows that these two factors were the main ones governing their ability to follow the metronome. Those did best whose natural rate was nearest the metronome rate and who were least distracted by external or internal factors, causing variations. This relation is again a demonstration mainly of their lack of voluntary effort.

Several tests were made that are best grouped under tests on attention and effort. In addition to their natural rate of tapping, their maximum rate was also determined as a means of obtaining some measure of the degree of their real voluntary effort. Every means of encouraging them to maximum rate was employed. The results are 15.64 taps per five seconds for their natural rate, and 17.28 taps per five seconds for their maximum rate. This indicates an almost absolute lack of voluntary effort. The four lower grade cases also showed the smallest differences in the two rates. Further, grouping all the results of the minute series into those of the first, second, third, and fourth quarter of the minute shows that the greatest difference between the two rates was during the first quarter. The following are the average differences per five second interval:

1st quarter	2nd quarter	3rd quarter	4th quarter
2.57	1.66	.99	1.14

That is to say, the slight increase in effort they did make for their maximum rate at once disappeared, and by the third quarter of the minute the two rates are practically equal. Again, in the tapping in which they followed the metronome they did best during the first half of the minute. In both instances this is truer for the lower grade cases.

Four different tests were made on association and discrimination time. Since in all such tests the time we measure includes the time it takes the subject to give an expression to an association, and, since with the feeble-minded this time is apt to be long because of their slow reaction in giving expression to the association, perhaps, more than because of a long real association time, these tests had better be regarded as tests on attention and effort rather than tests on association time. The tests given were (1) naming as fast as possible ten simple object pictures that were placed before the child. (2.) Sorting twenty-five picture cards into five piles, according to the five different pictures that were on those cards. (3.) The same, with colors instead of pictures. (4.) The same for geometrical forms, on cards. In all, the time was taken with a stop-watch, and in the last three the mechanical time, the time it took the child to merely pile off the cards without discrimination, was determined. The time for sorting minus the mechanical time was taken for the real discrimination time. The average results in seconds for naming or discriminating one thing are:

Naming pictures - - - - - -	1.48
Discriminating pictures - - - -	1.46
Discriminating colors - - - - -	1.67
Discriminating forms - - - -	1.93
Average - - - - -	1.64

These figures are very much lower than obtained by Johnson and by Wreschner, which is undoubtedly due to difference in method, and the individual coaxing my cases received. They indicate at once that the real association time with the feeble-minded is not very much below the normal. The high averages obtained are more due to their slowness in giving expression to an association. The difference in the time for pictures, colors, and

form is probably also more characteristic of the feeble-minded than it is of normals. In the present tests it is greater for the lower grade cases than for the higher grade. The general average for the lower grade is 2.00 seconds, for the higher grade 1.46 seconds.

An attention span test was made in the following way. Simple geometrical forms, in colors, were pasted on cards, making three groups of cards. On each of the first was one form in one color, on each of the second group, two forms in two colors, on each of the third, three forms in three colors. These cards were shown successively for one-sixth to one-fifth seconds by a noiseless apparatus. The child then picked out the forms and colors he thought he had seen from ten to fifteen others before him. The average number of forms and colors correctly picked out are as follows:

One form in one color - - -	1.94
Two forms in two colors - - -	2.79
Three forms in three colors - -	3.75

These averages are lower for the lower grade cases than for the higher grade cases. But they are all higher than might have been expected, and indicate that the attention of the feeble-minded for such a brief interval of time is much nearer the normal than it is for longer periods. As in the memory span tests here also the results show preferences for certain forms and colors; more mistakes are made with some than with others. The explanation is the same as in the memory preferences. Those to which a greater interest attaches arrest their attention and crowd the others out of mind. The fact itself is not peculiar to feeble-mindedness, but the degree of it indicates a less ability on the part of the feeble-minded to voluntarily direct their attention to relatively uninteresting things. For the sake of testing their ability to learn the particular combination of forms and colors in the cards always shown, one card was shown three times as often as any of the others. This card, card 6, had two forms in two colors. Comparing the results of this card with those of the others of its group, cards 7-10, gives the following, as average number of forms and colors correctly picked out:

Card 6 - - -	3.36	for the higher grade cases
Cards 7-10 - - -	3.06	
Card 6 - - -	2.78	for the lower grade cases
Cards 7-10 - -	2.52	

A domino discrimination test was given. In a set of double nine dominoes divided into groups of ten, a circle of ten was placed before the child with one from another set placed in the centre of the circle and the child requested to find as quickly as possible the one in the circle that matched the one in the centre. When the correct one was found it was quickly replaced by a second, etc. The results, both in the number of mistakes made, and the time it took to complete a group of ten, run quite closely parallel to the general grade of the cases. The average number of mistakes made per group of ten, by the lower grade cases is 1.87, for the higher grade it is only .30. The time it took to complete a group is 5 minutes 34 seconds, and 2 minutes, 5 seconds, for the lower and higher grades, respectively.

The majority of their mistakes was due to their overlooking one end of the block. A smaller number of mistakes was due to their choosing by general appearances—instances of real inability to discriminate.

DISCUSSION

Dr. Rogers: I was very much interested in Dr. Kuhlman's paper read by Dr. Wylie. I was very much interested to hear that in his experiment he brings out the same fact with which we are all familiar, and that Dr. Wylie himself has demonstrated with regard to the weak will power of the feeble-minded child. Dr. Wylie's experiments, if you read them in the Journal, show that the characteristic record on the cylinder represent an immediate drop of will-power just as soon as the raising and lowering of the weight begins, while with the normal person it is a *gradual* lessening of the reciprocal motion. With the feeble-minded child it is invariably a very vigorous movement and then a complete interruption. The observer will say, "Now, Johnny, go on", and then there will be two or three motions and then a stop, demonstrating the point referred to. Of course, the practical point for the teacher is the fact that the will power needs developing, and there is no place in the training of the feeble-minded child where that is not true. One of the beneficial effects of a calisthenic drill where the music simply assists the child to become interested, is that the producing of a definite movement at a definite time exercises the will, provided it is not carried to an extent that will make the movements automatic afterwards. I think that in every department of the school training, whether in the school-room proper, on the play-ground, or in manual or industrial training, the point should always be emphasized, that it is not what we make a child do, but it is what we *induce a child to do himself* by exercising his own will power to produce some result, what ever it is, that is of benefit to the child. Unless we do that we are not properly training the feeble-minded child. I know in years past I have found in passing through different school-rooms, teachers trying to impress a child with a statement that a certain thing was a fact, while the child's mind was probably anywhere else except on that fact. The teacher would repeat over and over again c-a-t, cat, and so on, which of course is not training the child's mind at all. Anything that that child could do,—handling the cat or pulling its tail, and so finding out that it is a cat, would be worth a great deal more than the teacher told him, and so with everything else in school training.

All these psychological experiments emphasize the fact of weak will power. And just in that connection I wish to mention what to me is a very interesting fact brought out by Dr. Wylie's experiments with the ergograph, and that is that on the other hand the epileptic had an almost continuous record, so far as his experiments went. It has seemed to me since that fact was found to be true, that perhaps it resulted from the capacity for continued muscular exertion developed by the severe and persistent muscular actions of the convulsion and thus the ergograph records represent rather a sort of automatism, than any marked exercise of will.

PRACTICAL TEXTILE WORK FOR FEEBLE-MINDED CHILDREN

MISS ADA M. FITTS

THE following is a brief account of the steps that have already been taken and of those that are to be attempted with a group of fifteen feeble-minded girls in one of the public school classes in Boston. It is hoped that besides the present development of hand and mind this training will make them more useful in the future and will perhaps lead to partial self-support.

In January, 1903, the work was begun. The children differed so much in attainments that each individual was a problem by herself. Various forms of manual work were tried, such as basketry, sloyd and sewing, but weaving held the interest of all and more than anything else has afforded opportunities for development. The hand and arm have been strengthened by daily use, the eye trained in accuracy and one cannot over-estimate the gain in patience, perseverance, industry, dexterity and concentration. As time has gone on a new consciousness of power and a feeling of self-respect have come to each pupil as she has realized that she has made something that is of use, either to herself or to others.

I shall never forget the pleasure that was expressed in the face of a low-grade pupil, when, after many attempts she succeeded in doing her first work on a hand loom. It was three months before she grasped the simplest idea of paper weaving, the mystery of "over and under" being quite beyond her comprehension. At the end of the fourth month she made her first perfect paper mat, then was given a simple loom strung with warp threads one-half inch apart. As she had mastered the paper weaving, she easily took this advance step and since then has gone on to more difficult work. The plan of work has been as follows. The principles of weaving were taught by the use of pieces of oilcloth, nine inches square, with slits an inch apart, through which strips of pasteboard are woven, in the manner of darning. After the children were able to use these materials a warp of cord on the Todd loom took the place of the mat and further practice was given by the use of longer slats. Then came mat weaving as done in the kindergarten and later free paper weaving which required much more skill and a great deal of patience. As some succeeded in going from very simple to more difficult work, they became teachers for the slower ones and soon all began to see that they were learning *how* and that each successful attempt brought them nearer to the day when they were to have a loom to work upon. More attractive materials, such as leather, raffia, jute, rug yarn, carpet ravellings, chenille and silkoline, took the place of the slats and they have gained in ability until splicing, spacing, the use of several colors, and border work have become possible to every girl.

At first the things made were small and of little real use except as they taught the process but as the pupils gained in power, they worked on a large sized loom making jute and yarn rugs, thirty by twenty inches in size and serviceable for door mats. As they became more interested they began to

ask questions about the materials and this led to the purchase of a wool wheel and several girls are now learning to spin the yarn which is to be used in the looms. The simple loom, hardly more than a darning machine, has been replaced by a regular hand loom on which cloth twenty-eight inches wide and many yards in length can be made. Towels, fringe, couch covers, cloth for shirt waists, rugs, and carpeting are possible on this loom and the girls are eager to use it. After this new problem has been mastered a Colonial or Swedish loom will be the next step and it is hoped that a serviceable and beautiful product will be possible.

Something must be done for the girls who will be kept at home rather than sent to the state institution at Waverley. Would it not be possible for them after they leave the special classes to come to a centrally located building where under direction they might receive further instruction and do something towards self-support? This would keep them from shops or factories where they would constantly be in need of protection and would enable them to earn small wages under safe conditions. In this way they could be followed by interested friends and protected and cared for in case of the death of parents. If this should be done textile work seems to be one of the practical ways of making them happy and useful.

DISCUSSION

President Johnstone: Now these two papers are open for discussion, and we shall be glad to hear from you on either of them. I hope it is not going to be as hard to get the ladies to speak this time as it was a few minutes ago. Dr. Dunlap, won't you give us some ideas on the question of weaving? I believe you have some advanced ideas on the subject.

Dr. Dunlap: We have two looms, a large rug and a carpet loom which will weave cotton warp, and then we make a certain rug with a needle with a large wooden handle,—the rug is made on a canvas and wooden frame. As the children are allowed to use their own judgment, some of their original designs are wonderful to behold. They are very fond of weaving and it is a very practical industry.

President Johnstone: The difficulty in teaching children the first steps in weaving, is a subject that we might get some light on from some of the kindergarten teachers. The beginning steps in weaving,—weaving over one and under one, is a very hard thing for a number of our children to learn. It seems to me it would be interesting to know how the teachers meet that difficulty.

Miss Dillingham: We have a frame that we call a weaving frame. It is seven inches square—we tack strips of tape on it and weave with what we call slats which we get from the kindergarten supply houses.

Dr. Rogers: While we are waiting for Miss Dillingham to bring in some of that material, I wish to say I was quite interested in one thing that was brought out by the paper of Miss Fitts. Miss Fitts is one of several very enthusiastic teachers in the Boston schools, working with backward children. Mr. Lincoln, who you will remember last year at Washington

presented a report to the Commissioner of Education on training the feeble-minded, induced Miss Fitts to prepare this paper. In his little memorandum that he sent with the paper when he forwarded it, he said it seemed to him that this textile manufacturing was a practical suggestion for a profitable industry for the feeble-minded. Now the interesting point that this leads to, that is really brought out in Miss Fitts' paper, is the point that has been overlooked in all the discussions on schools for feeble-minded children in the public schools—that is special schools—the fact that all these children are from the very nature of their condition custodial cases, cases that the state, society as represented by the state must provide for permanently.

President Johnstone: I am very glad indeed that Dr. Rogers has spoken of that phase of the question—the establishment of backward classes in the public schools has raised a very serious question. The problem of the care of those cases is one that must have consideration. I think last year Dr. Murdoch dropped just a hint on that subject. We would be glad to hear from him today. I think from the hint he dropped he feels quite strongly on the subject.

Dr. Murdoch: I would rather not say anything on this subject for publication.

President Johnstone: Miss Dillingham, will you now kindly illustrate that first stitch? I think, probably, that we are all interested in it. I hope I am not being selfish.

Miss Dillingham: I think it is not different from what the others have tried. These little frames are made in our carpenter shop, and then the tape is tacked on. We made some like this for the St. Louis Exhibit. They are so strong that the children can weave without any danger of breaking them, at least I have never had any children break them. The older classes that are just learning in the first primary school use a narrower slat, but with the very little ones, of course, a broader slat is better. The tape can be used in different colors. I have just begun to use wool braid so I cannot tell whether it will be better, but I think it will be better than cotton tape and will be more durable. One other mat I would like to show you. This is what we call a leatherette mat. It is on sale at the kindergarten supply houses. I find that the children who have crippled hands and yet have intelligence enough to make a mat, can weave this without tearing it. They are so happy when they can have one to take to the play room or send home. Leatherette seems very good for the purpose, but linen is not very satisfactory.

Dr. Rogers: I might say, Mr. President, that these things are along the line that every one recognizes cannot be emphasized too much in working with feeble-minded children,—that is to make as strong an impression as possible. Consequently all materials should be just as large as possible. The usual stock of kindergarten material is absolutely unfitted for the purpose of beginning work with feeble-minded children. That same point is brought out, so far as the motor activities are concerned, in the paper by Mrs. Murdoch in reference to the necessity of presenting those occupations which do not require intricate movements of the fingers. It is just there that so

much of our kindergarten material is entirely unfitted for the purpose of training feeble-minded children.

Miss McLean: Perhaps it would be interesting to the teachers, to tell something of the preparation of our kindergarten material. In place of buying material directly from the supply houses already prepared we buy a great deal of it in raw quantities. For instance, the papers that are used for making chains, for stringing, and for parquetry work are all cut by the intermediate classes in school. Instead of using the fragile straws for stringing we buy the parafine paper straws and have the lower grade children cut them the proper lengths. Letters, figures, and words for busy work in language and numbers are printed of large type in our printing office and are a great help in the primary classes.

President Johnstone: I wonder if Dr. Rogers might not let some of the rest of us who are not so fortunate as to have a printing office have a list of material that we could buy from Faribault. I am sure there are a number of our institutions which would like to have this large material. There is no question but that the use of large material in all of our schools has become a necessity. We are no longer experimenting with it, we know we cannot get along without it, and if Dr. Rogers has those things in the printing line that we can get I am sure that we will appreciate it.

Dr. Rogers: We would be very glad to furnish the schools anything of that kind.

Miss McLean: We also make a block, cube, square and cylinder four times the size of the ordinary kindergarten ones. They are not so accurately made but they are accurate enough for ordinary work. I would like to say in this connection that we have found it advisable to have the building blocks of very large dimensions—2x4x10 inches—about the size of an ordinary brick.

Mrs. Murdock: We color the ordinary building bricks,—paint them the ordinary colors. I would like to say that in our low grade classes we have found children who are in what we call the custodial kindergarten department who did not make any progress at all when the old style kindergarten material was used, but who did make progress as soon as they began to use large sheets of oil cloth painted in colors, and then matched on these sheets four-inch cubes or three-inch cubes and oblongs perhaps ten inches long and two or three inches square on the ends. We also had quite a little success in interesting our low grade children in colors by taking a number of return balls and having the children assort them. The only way we could get them in the quantity we wanted them and cheap enough was to go to some toy store where the toys had been in stock sometime and the rubbers had rotted away and buy the balls. The low grade children were taken into a room with a waste basket full of these balls and then three or four baskets were set on the floor with some of the brighter children to guard the baskets. Then the waste basket full of balls was thrown violently across the floor and the low grade children told to gather them up. The different colors were to be deposited in different baskets. The low grade children would gather them up and bring them back and the brighter children would say, "No, that does

not belong here, that is green or red" or whatever the case might be. While they did not learn the name of the colors they did learn the colors, and that was quite a low grade class of children.

Dr. Rogers: That would be good exercise for the children too.

Miss McLean: It is surprising what low grade children will do in the way of games and exercises. Our Thursday night entertainments have been devoted to the low grade class. To me it is one of the most interesting entertainments we have.

President Johnstone: We shall be very glad to hear any further discussion of either of these papers. I am sure that we are interested in these little by conversations that are going on. I hope you will all remember that these things are not only for those of us who are here but for the teachers in the various institutions who will read what is said at these meetings. I hope you will give us the benefit of those conversations.

Miss McLean: I was just telling Dr. Murdoch that the kindergarten material is rather expensive so our custodial girls make these yarn balls. We select the colors and the custodial girls make the balls for the use of the kindergarten children. These are the sticks (showing sticks) that we use for stick building. We have good success in dyeing them with diamond dyes, but for ordinary use we leave them the natural color. They are made four times the size of the ordinary kindergarten sticks. The making of them gives work to the boys in the shop and it furnishes us with material that we can not buy. These curtain rings we buy. The older boys make tops from large spools that the small children are very fond of playing with. They prefer them to anything we buy.

Miss Dillingham: Another advantage of the covered ball is that when it becomes faded you can shear it and restore its color.

Dr. Rogers: Miss Douglas wishes to have it emphasized that it was the custodial *boys* and not the girls that make the balls.

Miss Blalock: (Showing loom) This is the only loom that has this hammock attachment. It gives a dip to the hammock that one cannot get on a straight loom. I have one little girl that made a hammock of cord, this is made of rags. The point I like about the Faribault loom is this additional leg. In pulling it with the fingers in the other looms one does not get it even. It will be thick in one place and thin in another, while with this leg one can keep it even.

Dr. Rogers: Of course, we shall have to be given credit in Minnesota for both looms. The Todd and the Faribault loom are both Minnesota looms.

Dr. Murdoch: This weaving is a very excellent occupation. It is a very simple matter and you can use up your old clothes in that way,—by cutting them into carpet rags, and then weaving is an active occupation.

Dr. Rogers: Has knitting been a success with your knitting machine?

Dr. Murdoch: Yes, we find it so. We make most of the stockings we use in the institution and we also knit caps,—caps that pull down over the ears in winter,—caps for the boys, and mittens. We do all that in our industrial department.

President Johnstone: What machine do you use?

Dr. Murdoch: We have the Bronson, I believe, the circular one, and then we have another one. I do not remember the name of it,—the Lamb I think it is. It has fifty-two parallel pieces, and instead of being circular it is flat,—the two sides come together.

President Johnstone: Do you find that it is large enough?

Dr. Murdoch: The Lamb is more satisfactory.

President Johnstone: Where is it manufactured?

Dr. Murdoch: I don't remember.

Dr. Rogers: Does Mrs. Massey happen to remember where that machine is made?

Mrs. Massey: No, I do not, it is an imported machine, I think.

Dr. Rogers: I will say that Mr. Massey has a knitting factory, so it occurred to me that possibly Mrs. Massey might remember.

President Johstone: I am sure we all are very much interested in this part of the work, the part pertaining to school work proper, and we shall be glad to hear further from any of you. I just want to say—say publicly to Dr. Rogers that if any of my teachers get in this vicinity, or if I can get them to spend a part of their vacation here, I will send them to this institution. I wish to say to the ladies of the Faribault institution that we extend to them a cordial invitation to come and stay with us as long as they like, and if you do that I will feel free to send my teachers here.

Miss LaSelle, won't you say something to us in discussion of the paper on entertainment?

Miss LaSelle: I think you can talk on that better than I.

President Johnstone: Everything that I can say has been said. That is a matter of vital importance to all of our institutions, and we are ready to welcome any new ideas.

Miss LaSelle: The work in the way of entertainment that I did with the operetta was musical almost altogether—that is the part of the entertainment that I had the most to do with. The children are very much interested in the musical part of it, which appeals to them more than the dramatic parts.

Dr. Murdoch: I have in mind the work that our teachers are doing in weaving this spring. I have not seen anything like it in the other institutions, although it may be something that is carried on in many of them. They are making raffia cushion covers which they weave on a simple loom, a loom which they make in the sloyd room—a simple square frame and I think a cotton chain. The raffia is carried through on a needle, and it makes a very attractive cushion cover. The operation is very simple and it is one in which the children take a great deal of interest.

In Memory
of
Dr. Francis Marion Powell

BORN IN MORGAN COUNTY, OHIO, NOVEMBER TWENTIETH, 1848.
DIED AT CHICAGO, ILLINOIS, AUGUST SIXTEENTH, 1903.
INTERRED IN GLENWOOD CEMETERY, MILLS COUNTY, IOWA,
AUGUST NINETEENTH, 1903.

SUPERINTENDENT OF IOWA INSTITUTION FOR FEEBLE-MINDED
CHILDREN FROM MAY 1882 TO JUNE THIRTIETH, 1903.

MEMBER OF ASSOCIATION OF AMERICAN INSTITUTIONS FOR
IDIOTIC AND FEEBLE-MINDED PERSONS FROM 1882.

PRESIDENT OF ASSOCIATION 1885-6.

DR. FRANCIS MARION POWELL

A. C. ROGERS, M. D.

* * "I pray thee, then
Write me as one that loves his fellow-men."

NO person visiting the Iowa Institution for Feeble-Minded Children, a Glenwood, can leave it without noting certain features that give it a distinct individuality. The most casual visitor, who may not care to go into the details of the institution system and the methods employed, will note the school gardens with their beautiful beds and banks of flowers—will learn of the fruit culture carried on so extensively and observe the cannon mounted upon the brow of the hill overlooking the picturesque town below—relics of the late Spanish-American war that put the institution in touch with one of the world's great historical events. He will be especially interested in the beautiful Assembly Hall with its artistic decorations and inspiring inscriptions, and finally he will comprehend the fact that the inspiration for these characteristic features of the institution has come from the man who for twenty-one years directed its management—Dr. Francis Marion Powell.

Dr. Powell was born in Ohio, in 1848 but spent the earlier years of his life in the state of Wisconsin where he attended the common schools during the winter and worked during the summer. After supplementing his common school education by a course in the Ohio Wesleyan University, he taught school for several years, then entered Starling Medical College at Columbus, Ohio, where he graduated as a Doctor of Medicine in February 1875, with class honors. In September, 1873, Dr. Powell was united in marriage with Miss Louise M. Newton, a native of Ohio, and unto them have been born five children, four of whom are yet living: Ida M., now the wife of E. E. Black, of Chicago, who has one daughter; Velura M., O. W. and Fred M. After graduation he settled in western Iowa and entered at once upon the practice of his profession. He was successful from the start both professionally and financially. While his work was that of the "country practitioner" he was skillful in the treatment of his patients, his counsel was sought by his professional brethren, he won the personal confidence and esteem of the community, and he established the reputation of collecting his accounts with more than ordinary success. While generous and responsive to needs of the suffering, regardless of compensation, he possessed an unusual ability for adjusting professional claims by accepting personal property for what would otherwise have been poor accounts, and frequent additions to his horse barns, cattle yards, and pig pens bore evidence of settlement satisfactory to both parties. He soon acquired a fair competence for the rural community in which he lived. A small estate being intrusted to the doctor's management was delivered to the heirs worth more than it was when he assumed the management, after deducting all expenses necessarily involved. Thus, his skill as a physician, his personal popularity

and his local reputation as a capable and honest custodian of other people's money, led to the consideration of his name for the superintendency of the Iowa Institution, located in his, Mills county, at a time when it was experiencing financial difficulties and the trustees were looking for some one to help them keep it out of debt until the state should treat it more generously than it had previously done. After due consideration, Dr. Powell was appointed and assumed the position of superintendent in May 1882 and the history of the institution thereafter justified the choice.

Dr. Powell's institution work belongs to the second period of the history of the care and training of the feeble-minded in this country—the period during which it was to be popularized and established as a part of the state's philanthropy, as the care of the insane had already been. The same qualities that made him successful and popular in a small sphere made him popular and influential in a wider one.

The institution had been well organized and so far as its work had been understood, it had the confidence of the public, but being one of the state's newest and least known charities, the legislature was inclined to hold its financial support down to the lowest point. Only those who were familiar with the circumstances can understand what a struggle it involved to obtain deserved recognition of the requirements of the institution—when one hundred and twenty dollars per capita for all current expenses (except salaries) and most repairs were considered sufficient—when to "get through without a deficit", it was necessary to do many things that compromise a superintendent's ideas of right and propriety; such, for instance, as to have three or four children sleep in the same bed in some dormitories.

More than once during the period of the institution's history did different governors visit it to study ways and means for preventing a deficit.*

The doctor's tactful methods, genial disposition, loyalty to friends, honesty and sincerity of purpose and the manifest justice of his requests, constantly increased his influence and brought his work properly before the public and established its place in the state.

The doctor's relations with the board were always cordial and with them as with legislative committees, he knew, what so many superintendents fail to recognize, the limit, beyond which a request should not be pressed, and if the time was not propitious, he knew how to wait till it was. Thus he developed the reputation of securing in the end practically everything he desired for his institution. On the other hand, he recognized his responsibility and knew when to act independently. At one time an epidemic at the school necessitated the purchase promptly of some unauthorized supplies. A message from the president of the board expressed surprise at this unlawful act

* It was during a consultation between Dr. Powell and Governor Larabee, on an occasion when the doctor had insisted with much earnestness that the institution could not be properly conducted with the limited financial support provided, that the governor observed among a number of bills he was examining that the railroad was discriminating against Glenwood (and thus the institution) in rates on fuel as compared with larger towns, farther away from the mines and this discovery was the beginning of the noted war in Iowa between the railroads and Governor Larabee in which the latter finally won in the interests of the people of the state.

to which he replied by wire to the effect that a noted Federal General had said that the Union was to be saved first and the law observed afterwards. The purchases were promptly approved.

The doctor was very happy in his recognition of the proprieties. He had a keen appreciation of humor and while given to practical joking, as many of his friends throughout the state can testify, he not only knew how to open the attack with skill, but always gave the final shot. Nor did his shafts carry poison—to cause a sting was the farthest from his thoughts, malice was not in him. This practical joking was of a nature to amuse the victim and eventually insure his lasting friendship. If in the course of duty or by inadvertence he caused a person to feel that he had injured him he only waited for the first opportunity to show him a generous act—often entirely unexpected and always done in a modest way without the least suggestion of obligation.

In his relations with the people of the institution every child knew he was his friend—and every employe who did his duty never doubted his loyal support. The doctor's most difficult task was to discharge a person who failed for want of ability and while zealous to maintain a high standard of efficiency in the service, and a vigorous protector of the rights and interests of the inmates of the institution, he could nearly always put a charitable interpretation upon the worst act of a subordinate. If the good of the service made an employe's dismissal necessary, and the doctor felt that the offending person had learned his lesson and deserved another chance, he would bring his influence to bear to secure him other employment and while frankly explaining his deficiency would usually succeed in securing the desired place for him. His people were devotedly loyal. The story of David and Jonathan has been exemplified by the touching example of mutual confidence so long and to the last existing between the doctor and his first assistant.

Dr. Powell never had the advantage of a classical education but he was an intelligent, extensive reader, especially on educational, sociological and philanthropic subjects; and while he never developed the art of extensive public speaking he always formed well considered opinions on all subjects in which he was interested, and when called upon for an expression of views, whether in public or private, he was always ready to contribute something to the point and his opinions were received with respect. He was an earnest believer in the importance of environment in determining the development of the child and the formation of character, and in counteracting vicious heredity.

Dr. Powell became an active member of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons in 1882, and was honored by the presidency of the association in 1885. "Although of recent years he was unable to attend every meeting of the association, yet his heart was thoroughly in accord with the work, and none regretted his absence more than himself. He regarded the association as one of the great means of disseminating information in regard to the duty of mankind to a branch of its unfortunates.

For years the doctor affiliated with the National Conference of Charites and Correction and contributed frequently to its papers and discussions.

Outside of his profession Dr. Powell took an active interest in horticulture and stock raising and became a recognized authority in his state in the culture of apples and the owner of extensive orchard interests.

Dr. Powell possessed an innate love of the beautiful in nature and art and many features of the grounds and bnildings testified to this fact. As his failing health caused him to give up his work at Glenwood, he came into possession of a property in Red Oak, Iowa, upon which he had begun to expend his best remaining energies with a view of perfecting an ideal home for defectives. He loved to talk with his close friends about his plans for beautifying and adorning this home so as to make it not only a monument to himself but a pride to the state.

In the midst of this work so dear to his heart he was taken away to leave the unfinished project to the care of his family.

Going to Chicago for a little rest and change, he found it necessary to enter a hospital where he died on August 16, 1903.

The funeral services were held at the institution in the beautiful Assembly Hall, which he loved so well, his bier being covered with floral pieces that spoke so eloquently of the affection of all who knew him. A most touching tribute was a beautiful floral design from the children of the institution, bearing the inscription "Our Doctor".

The services were opened by Rev. W. L. Martin of the Christian Church and addresses made by Hon. John Y. Stone and Judge Smith McPherson, both of the latter being intimate personal friends and associates in public life. The grand hall was filled and every word of eulogy and note of music found entire sympathy with the audience on that rare occasion, where every person felt that the departed was his own and special friend.

The body was laid at rest in the Glenwood Cemetery by the Ivanhoe Commandery Knights Templars, of Council Bluffs, of which order Dr. Powell had for many years been a member.

Thus has passed away one whose life may be judged by his motto from Horace Mann, "Be ashamed to die till you have won some victory for humanity.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX SEPTEMBER, 1904 No. 1

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, PH. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Post Office at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

In the first paper Dr. Kuhlmann has given an account of some of his experimental studies on several cases of feeble-mindedness; a more extended account of which, together with much additional matter, will be found in his thesis submitted to the Faculty of Clark University for the degree of Doctor of Philosophy. It is a very hopeful and significant sign that our scientists are beginning to explore this very interesting and significant field, for it will lead eventually to the illuminating of some of the dark places in sociology and criminology.

Miss Fitts gives an interesting account of her work in teaching textile work to one of the special classes in the public schools of Boston. She is brought face to face with their lack of responsibility and consequent need of supervision which has always been the most important problem to those engaged in the work. Her suggestions as to a solution will be regarded by

many as inadequate. By our best and most experienced men segregation is regarded as the only adequate and efficient solution.

In the paper on Dr. Powell we have a most valuable and sympathetic estimate of the man by one who is best able to speak of him.

The theory of neurone retraction has many attractions, for one wishes to formulate some explanation of the conditions found in idiocy and imbecility. It originated in an observation of Wiedershein that the nerve cells in a crustacean Leptodora were capable of active movement. Later DeMoor based this view on the viscosities of the dendrites which he had observed by application of the Golgi method. These viscosities Stefanowska found were associated with the disappearance of the dendritic gemmules. Cajal came to the conclusion that all nerve and glia cells moved and made claim that the gemmules made the contact between the different neurones so when these were withdrawn and the contact broken, there would arise the appearance of swellings or viscosities on the dendrites. And on this was based an explanation of sleep, rest and dreams. And at first sight it would seem to offer an easy and adequate explanation. The activity in great part of the neurones ceases during sleep, hence retracted and thrown out of circuit and in dreams we would have certain chains of them thrown in circuit again. Some even went so far as to explain the association of ideas on this basis.

Of the millions of cells in the human cortex it would seem that many of them were never used by an individual. The activities and stock of ideas of any one person would seem insufficient to call for the functioning of all these cells. So the retraction of the neurones and the consequent variations in the chaining would thus account for individual differences.

In psycho-asthenia we have the stunted mental growth, the reduced stock of ideas, the contracted mental fields and lessened activities, all of which might arise from the permanent retracted condition of the cortical neurones, which condition could arise either from some defect in the germ itself which hinders it from going on to complete development or from the lack of proper nutrition, the conditions of which we find in so many of the histories.

But more recent investigations have cast doubts on the morphological basis of this theory. Cajal found that normal and toxic material showed the same number of viscosities. And Goddard found the viscosities during sleep but not during fatigue. And Weil and Frank in an elaborate investigation with the Golgi method in its three forms, slow, mixed and rapid, reached the conclusion that the viscosities were artifacts for they were always shown by the mixed and rapid methods but much more rarely by the slow.

And as this is the only method which gave evidence of the morphological basis of the theory it is consequently left much in doubt.

It is to be hoped that some investigator will settle the question by observations on some of the lower animal forms where the nerve cell can be observed in the living body.

NOTES

Traumatic epilepsy only is amenable to surgical treatment. The intervention should be early and many years should not have passed since the first attacks.—*Bourneville.*

Zimmeres and Drimer report to the Societe de Biologie that they have obtained by means of electrical stimulation (Leduc currents) a central inhibition resembling epileptic coma. By exciting the cortex with an intermittent current of 16 and 30 volts, the attack is soporific, if the rhythm is irregular, motor phenomena and convulsions appear at the positive pole, there is pain, contraction of the members and rotation of the head toward the left. The more the phenomenon is repeated the easier it appears.

Dr. Strasser finds that the diminution of the number and intensity of the attacks in epilepsy can be obtained by cold applications upon the cranium and spine. On the other hand it is curious to note that the wet pack of which the calming effect is so manifest in cases of exaggerated reflexes, offers no advantage in epilepsy. Sitz baths of 26-30 C. exercise a much more marked sedative action in this affection.

In fact hydrotherapy properly maintained enables one to combat the cutaneous and gastro-intestinal manifestation of bromism and by its use one can diminish the quantity of bromides administered without lessening the therapeutic effect. *It is undeniable that hydrotherapy favors the rapid elimination of the bromides.*

Mechanotherapy does not give any marked results and electrotherapy in any form gives results either negative or harmful.

Bl. f. Klin. Hydrotherapie, June '02.

At a session of the New York Academy of Medicine held on April 21, 1903, Dr. Wm. P. Spratling read a paper on epileptic aura in which he said that it was now believed that the aura originated in the central nervous system and was referred to the periphery. He agrees with the growing tendency to consider the aura as a constituting part of the epileptic attack. The various auras are grouped as psychic, sensory, motor and irregular. The sensory are the most numerous and hence the most important. Of 815 males and 510 females studied, 319 males and 189 females had sensory aurae. A psychic aura was present in 4 per cent of the cases and a motor in 2 per cent. Some form of aura was present in 45 per cent of 1325 cases. So he thinks that it is safe to say that 50 per cent of all epileptics present an aura. It was impossible to estimate the number presenting irregular auras but it was uncommon.

The most common form of psychic aura was a sudden acceleration of imagination. In some cases this was preceded by some confusion of ideation. Fear of a primary and increasing kind was often met with in connection with the psychic auras.

Sensory auras had the greatest range of character. Visual were the most common and took the form of flashes of light, sometimes of illusion and more rarely of temporary blindness. Sometimes flashes of color were seen and sometimes objects were greatly magnified. Where color only is seen it is apt to be red or blue. Red had the smallest visual field. Occasionally auditory and visual auras were associated.

In auditory auras roaring voices, sounds as of the waves of the sea and buzzing noises are heard.

Epigastric auras are the most common of the sensory. They were present in 15 per cent of the cases. The most common form was 1st, an annoying sensation in the pit of the stomach; 2nd, a deep seated burning pain; 3rd, a choking sensation which arose to the throat when consciousness was lost. It is most important to determine if origin is central or peripheral. Many epigastric cases suffer from indigestion.

One of the most common forms of motor disturbance is running before the attack. These patients are apt to be violent. Some turn around two or three times before the attack. In the author's experience the more sudden and complete the attack the less there was of there being an aura.

Dr. Wm. M. Leszynsky said that it required much patience and careful observation to determine existence of an aura. It is only exceptionally that treatment begun as soon as the aura appears could accomplish anything.

Dr. L. Pierce Clark believed that the aura was always sensory or psychosensory at bottom. Epilepsy is essentially a sensory phenomenon with motor manifestations. He believes that the aura begins in the sensory cells of the cortex, spreads peripherally and to motor cells, whence the aura and the fit. Aura would appear in all cases if rate of cerebral diffusion was slower. Explanation of great frequency of an aura is found in the degeneration of the particular sensory areas of the cortex. The length of the aura and the degeneration of the elaborative mechanism indicates the reluctance of the cerebral centers to engage in the epileptic explosion. Many epileptics, on point of recovery only had an aura before the grand mal attacks. He mentioned two cases of intellectual aura consisting in dreamy states of familiar and unfamiliar places.

Dr. Williams had investigated the urine both before and after seizures but could find no difference. A. R. T. W.

The Surgical Treatment of Bright's Disease, by Geo. M. Edebohls, A. M., M. D., LL. D., Professor of Diseases of Women in the New York Post-Graduate Medical School and Hospital, N. Y. For a subject still in its infancy and of such vital importance to suffering humanity this work shows a careful selection of facts and results, from which important deductions can be made. It is a book well worth the careful perusal of every internist, as well as of every surgeon, who wishes to be up to date on so important a subject.

E. Paul Campbell, M. D.,
Faribault, Minn.

REPORTS FROM STATES

WHAT IS BE DONE FOR GREATER NEW YORK'S DEFECTIVE CHILDREN AT THE RANDALL'S ISLAND SCHOOL UNDER THE DEPARTMENT OF PUBLIC CHARITIES.

The subject of my paper, can only be outlined in the limited time at my command, although the training and instruction of the feeble-minded is one of the most interesting subjects in educational matters.

The defective children who come to Randall's Island are not promising subjects for educational treatment.

The high class imbeciles found in state institutions are rarely met with here, but with time and patience we have achieved some remarkable results.

The Empire state has been one of the foremost to recognize the importance of educating and training the feeble-minded, realizing that in proportion as the lives of these children could be brightened and elevated, these dependents would become less burdensome to society.

The first school for the teaching and training of the feeble-minded in New York state was founded by an act passed in 1851, and was the second state institution of its kind in this country. The school was placed under the care of Dr. Wilbur, who is considered after Dr. Seguin, the pioneer instructor of the feeble-minded in this country. The Syracuse state institution for feeble-minded children remained under his care until his death in 1883.

Meanwhile the Commissioners of Charities and Correction of the city of New York, finding a number of feeble-minded and idiotic children under their care, erected a building on Randall's Island for the training and education of these defectives.

The school was opened with twenty children. During the first year twenty additional pupils were added and the number has steadily increased year by year until at present there are 283 on the school register.

I was placed in charge of the school, having had the privilege of being trained for this important work, under Dr. Wilbur. The teacher associated with me had also been trained in the instruction of the feeble-minded under his direction.

Only those, like myself, who have had experience in the initial training of these defectives can appreciate the gigantic work that has been accomplished among this class. The responsibility for their instruction having rested upon me for many years past, I have constantly noted the different degrees of improvement among the various grades of mentality below the normal.

From the beginning of my experience I had observed that those children who would show a certain proficiency in one branch would be unable to grasp

even the rudiments of another, and that the progress among those of most intelligence would be gradual while with the lower grades the improvement would be slow indeed.

Recognizing that physical activity in most cases had the effect of awakening the dullest mentality and that the mental and physical development should go hand in hand, the space afforded at this institution for outdoor exercises was early utilized for games and plays suitable to their condition.

After some years the children, who on entering the school, were unable even to help themselves had so improved that many of the boys were able to assist at farm work and most of the girls had learned to do house-work well and neatly. The boys had also been taught to braid and make door mats, (the old rope from the department boats being utilized for this purpose) and the girls had been instructed in plain sewing and assisted in making their dresses and other articles of clothing.

With the hope of devoting their developed energies to the most practical results, the idea of an Industrial School was first conceived. In 1888 a building was set apart for this purpose and instructors in tailoring, shoemaking and tinsmithing were employed.

About this time a kindergarten was added to the other branches of the school work. Gymnastic exercises, with music and singing, had been taught from the beginning and the children now readily lent themselves to the interesting games and motion songs, which had a good mental influence upon them.

The work done by hand, such as sewing mats, folding and cutting paper, trained the eye and hand; taught them neatness and gave them an idea of the harmonious arrangement of colors.

By degrees in the more advanced classes, free-hand drawing and nature study were introduced and observation and accuracy were developed; sense lessons have been given on various objects with gratifying results and all these studies have been of much educational value to these children.

The work of the older pupils in the Industrial School was so encouraging, and the census having greatly increased, basket-making, cane-seating and rug-making were added, and since that time tailoring, shoe-making, tinsmithing, mat and rug-making, with dress-making by the girls, have been taught.

From 1888 to 1895, the boys and girls of the Industrial School had annually made up a quantity of clothing for the institution, but in the latter year, an order was passed by the Board of Commissioners directing that each institution should manufacture all articles of clothing and bedding required by its inmates.

It was now that the benefit of the children's training in the various industrial pursuits was forcibly shown. With the introduction of steam power sewing machines in the girls' department and a slight addition to the tailoring department, the boys and girls who work two hours in the morning and two hours in the afternoon, employed at these two branches have made

over two-thirds of the clothing and bedding used by the four divisions of this large institution.

In the shoe-making department, the boys repair all the shoes for the School for Feeble-Minded, Children's Hospital and Custodial Asylum.

The mat makers supply the different institutions of this department and the steam boats with door mats, etc.

In the tinsmithing department, a variety of tinware used throughout the various institutions is made.

The basket-making department manufactures all clothes baskets, bushel baskets, waste paper baskets and hampers as required by requisitions, and in the cane-seating department, the boys are kept busy recaning the chairs sent here from all the institutions for repairs.

In April, 1902, 88 feeble-minded children from King's County Hospital were transferred to this institution. Since then, all the feeble-minded from the five boroughs have been sent here.

During the past year, sloyd has been introduced as a school branch. The observation and neatness developed by the nature study and free-hand drawing had prepared the children for the more mechanical exactness required in this manual training, and in consequence, they are making satisfactory progress.

A gymnasium was erected and equipped with suitable apparatus during 1903, and was opened on December 29th.

An instructor has been procured, and at the present time, under the direction of Dr. Nathan Oppenheim, the neurologist to this institution, classes in higher calisthenics and physical culture are being organized.

At the present date, there are 356 children in the divisions of the School for Feeble-Minded. Of that number 283 attend the regular classes of the school. Seventy-three being past the school age, assist in the dormitories, kitchens and dining-rooms and also keep the grounds around the different buildings in good condition.

The boys are classified in three separate buildings according to age, and the girls are classified in a similar manner in the school building.

One hundred and twenty-three children all over the age of fourteen, are employed in the industrial school and are occupied as follows:—

Sewing department - - - -	36 girls
Tailoring department - - - -	39 boys
Shoe-making department - - -	9 boys
Basket-making department - - -	4 boys
Cane-seating department - - -	8 boys
Mat-making department - - - -	9 boys
Rug-making department - - -	12 boys
Caring for plants in the green house - -	6 boys

Of the children classified as idiots there are at present in the division known as the Custodial Asylum, 251 inmates, 125 males and 126 females.

Even among this class of low mentality, the younger children are provided with instructors, and it is remarkable how these children have improved

in personal cleanliness; they have been taught to sit, stand, walk and play, to feed, and in many cases to dress themselves. Those good habits acquired with difficulty become second nature to them and raise them to a higher and happier state of humanity.

The principal aim of all those associated in the care of defectives on Randall's Island is to train them to wholesome, useful and cheerful activities of mind and body, in school, at work and at play, and also to enlarge their mental faculties so that they may be better prepared to apply their hands to useful labor when the educational period is passed. That we have accomplished this result recompenses all those interested in their welfare for the tedious and oftentimes arduous hours they have spent in the training of these defectives, cared for by the Department of Public Charities.

MAINE, NEW HAMPSHIRE, RHODE ISLAND

WALTER E. FERNALD, M. D.

Dr. Charles S. Little is superintendent of a newly organized but already a model institution at Laconia, New Hampshire. I wish also to report that the State Medical Society in Rhode Island has recently held a session devoted to the feeble-minded. They have applied to the legislature requesting it to organize an institution in the state for the feeble-minded; and the state of public sentiment is such that I feel that this institution is bound to come within a year or two.

I have also the honor to report that in the State of Maine at the last session of the legislature a committee was appointed to look into the whole question of providing for the feeble-minded with reference to the establishment of an institution in that state. This committee is very enthusiastic.

There is a strong public sentiment in Maine in favor of the institution and it is certain that at the coming session of the legislature an appropriation will be granted organizing this institution, all of which goes to show that the lethargy regarding this subject which so long overspread New England is disappearing. I trust you will rejoice with us.

KENTUCKY

JOHN P. STEWART, M. D.

I am sure you will be glad to know the Home is improving every year. I now have over 50 patients.

IOWA

GEO. MOGRIDGE, M. D., GLENWOOD.

Since the last meeting of the Association, our institution has lost the very

valuable services of Dr. F. M. Powell, after a superintendency covering twenty-one years. Dr. Powell resigned in June, 1903. He was led to this action by failing health, but he did not contemplate abandoning the work with which he had been indentified for so many years. It was his intention to open a private school for backward and mentally deficient children, and he was actively engaged in preparing for the reception of pupils when he was stricken with what proved to be a fatal illness, and died in Chicago on the 16th day of August, 1903, at the age of 54 years. It is needless for the writer to speak to this conference of the merits of Dr. Powell, or of his success in building up this branch of Iowa's charity.

The last few years at the institution have been years of progress especially in material matters. A number of new buildings have been erected, and plans evolved for additional ones. The 29th General Assembly (1902) gave us $109,075.00 for buildings, land and betterment, and the 30th General Assembly, which adjourned April 19th, 1904, $92,400.00 for similar purposes. The general outline for the gradual enlargement and development of the institution will be carried out mainly upon lines conceived by the late Dr. Powell, and we contemplate accommodations for an inmate population of 1200.

The efficiency of the institution has been materially aided by the hearty co-operation and encouragement of the managing body,—the Board of Control of state institutions, and it is significant of the esteem in which this board is held by our citizens to know that at the last session of the legislature there was a decided sentiment in favor of placing our state institutions of higher learning under a similiar board.

The change in the law in regard to age limit permits the admission of females up to the age of 46 years; on account of the lack of quarters we have not been able to receive all of this class who apply. Have found, too, that discrimination in these older cases is necessary as insane persons are apt to be palmed off on us.

The lack of any statutory provisions enabling the management to restrict removals is at times keenly felt, yet public sentiment is hardly ready for the necessary changes in the law.

The question of caring for the epileptic classes in a separate institution has not made much apparent progress; there is a sentiment in favor of it, but the state has recently had so many demands upon it for the creation of new institutions and for heavy appropriations for those already existing, that it has been thought wise not to push this matter at the present time. The Assembly which has just adjourned passed a bill creating a State Hospital for Inebriates, and also appointed a committee to inquire into the advisability of establishing a State Hospital for Consumptives.

The present status of the Iowa Institution for Feeble-Minded Children is as follows:

Number of inmates, 1007.
Ages of admission: Males 5 to 21 years. Females 5 to 46 years.
Number of acres of land in connection with the institution, 600 acres.
Number of employes, 181.

Our inmates are classified into three divisions, namely—school, custodial and asylum, although we are not able as yet to separate these divisions into distinct buildings.

Our entire teaching corps consists of seventeen persons, more time being devoted to manual and industrial training than formerly.

Having a detached hospital building, we have inaugurated a training school for nurses, requiring a three years' course; we also have a training school for attendants, with a two years' course.

Owing to a failure to obtain a specific appropriation we were unable to participate in the general exhibit at St. Louis, but have prepared, and have on exhibition in the Iowa building, a case containing our childrens' work.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX DECEMBER, 1904 No. 2

ORIGINAL ARTICLES

CLASSIFICATION OF MENTAL DEFECTIVES*

MARTIN W. BARR, M. D.

TO the student of mental defect the very first requisite is a classification that shall be at once simple and comprehensive, definite and clear. Various leaders in the work have each, from time to time, endeavored to formulate such a classification embodying the results of their study and experience; but the conditions, incident upon diversity of times and nationalities, as well as the differences of bases constituting premises, has so far prevented the adoption of a standard of comparison resulting in one common order of classification.

Yet another obstacle, has been the persistent inclusion of idiocy with insanity in many of the earlier medical writings leading to much misapprehension. Thus, as Howe shows, Good establishes the order *Phrenica*, diseases of the brain, and subdivides it into six genera, the last of which *Moira* is subdivided into two species: First, *Imbecillis*, imbecility, containing four varieties—first, stupiditas; second, amentia, forgetfulness; third, credulitas; fourth, inconstantia. The second species, *Demens*, irrationality, has three varieties, first, stultitia, folly, silliness; second, larema, dotage, superannuation; third, anœa, idiotism. Here we have 6 genera, 15 species, and 27 varieties of mental disease.

Ray gives two divisions of insanity:

*Mental Defectives, Barr, Blakiston's Son & Co.

- INSANITY.
  - Defective Development of the faculties.
    - *Idiocy*
      1. Resulting from congenital defect.
      2. Resulting from an obstacle to the development of the faculties, supervening in infancy.
  - Lesion of the faculties subsequent to their development.
    - *Imbecility*
      1. Resulting from congenital defect.
      2. Resulting from an obstacle to the development of the faculties, supervening in infancy.
    - *Mania*
      - Intellectual
        1. General.
        2. Partial.
      - Affective
        1. General.
        2. Partial.
    - *Dementia*
      1. Consecutive to mania, or injuries of the brain.
      2. Senile, peculiar to old age.

A comparison of recognized authorities followed up in such order as to embrace the experience of successive periods invites interested study, and may in time prove a means to a much desired end.

The first scientific classification was made by Seguin in 1846, although some observations, most superficial, had been noted previous to this, chiefly among adult imbeciles in asylums for the insane. Seguin assuming that the mental and moral features of idiocy are dependent upon conditions of the nervous system, based his classification therefore, upon the seat or location of these underlying physical conditions thus: "The remote cause or source may be physiological or pathological; the immediate cause is in abnormal conditions, either of the central nervous masses or in the nervous apparatus radiating from these centres, and which connect them with the individual environments." Going still further, he enumerates, first, "profound idiocy" as "the chronic affection of a whole or a part of the central nervous masses"; second, "superficial idiocy," " a partial or total affection of the nervous apparatus which ramifies through the tissues and presides over the life of relation"; and third, "backward children" in whom there is a retarded mental development that appears to be "the result of mere functional inactivity of the nervous system."

Esquirol dividing mental defectives into two classes—imbeciles and idiots—makes a subdivision based upon power of speech. In the first degree of imbecility the speech, although easy and rapid, consists only of detached words, short phrases or broken sentences. The second shows a yet more limited vocabulary often reduced to mere monosyllables or cries. The third presents absolute mutis.

Howe divided mental defectives into three classes—"idiots, fools, and simpletons." He claimed that "Idiocy, like insanity, may be intellectual or moral or both, and it may include all or any part of those classes of powers, and in any variety or combination."

Duncan and Millard give a classification apparently based upon conditions resulting from disease:

"Class I.—True and profound idiots: solitaires.

Class II.—Having a slight amount of intelligence, being able to stand and walk a little, and often capable of slight instruction.

"In these two classes the affliction exists at birth, and there are malformations and disabilities of various parts of the body. They are beings suffering from various functional disturbances, from perversion of special and common sensation, from paralysis of sets of muscles, and from inability to coördinate many more or less complicated muscular movements to a common end.

"Class III.—Able to walk, run, to use their fingers, to be made to attend slightly, to do easy mechanical work, and to feed themselves; memory and perception very weak, and variable in power. Their walking is defective; the voice rarely or never perfect; the memory, intellectual perception, foresight, etc., are very defective and often absent. The power of abstract reasoning is generally wanting and seldom to be traced except in very slight degree. Automatic movements are common.

"Class IV.—Feeble-minded children, adolescents and adults.

"Class V.—Born with perfect intelligence and with the usual gifts of children. A state of mind produced by disease of the brain, epilepsy, hydrocephalus, or by injury to the head. Malformation may, or may not exist, and muscular powers with ability to walk or speak are variable.

"Class VI.—Resembling Class V, but the evidence of permanent disease of the brain exists in the form of epileptic seizures and paralysis.

"Class VII.—Cases born with hydrocephalus, or in which the disease has been arrested after it has destroyed, more or less, the power of the brain.

"Class VIII.—Cases of individuals who have been educated and who have become debased in mind and body during youth from vice."

Hack Tuke has chosen a gauge of motor power as the basis of his classification, thus:

"First, Those who exhibit nothing beyond the reflex movements known as the excito-motor.

"Secondly, Those whose reflex acts are consensual or sensorimotor, including those of an ideo-motor and emotional character.

"Thirdly, Those who manifest volition—whose ideas produce some intellectual operations and consequent will."

Griesinger gives a classification embracing five types:

"1. Well-formed children, in whom the mental development, which remains at the lowest grade, is the only apparent defect, the defect not being due to any hereditary, but to some accidental cause of degeneration.

"2. The cases in which both bodily and mental development have been palpably arrested: these are the dwarfs in mind and body.

"3. The Cretin, or basilar-synostotic type of idiocy or imbecility.

"4. The Aztec type, consisting of the microcephalic idiots.

"5. The theroid idiots, who have a sort of resemblance to some animal."

Hoffbauer gives three classes. The first and second stand related according to comparative powers of judgment; the third altogether clouded

with delusions of evil and attacks of passionate anger approaching to insanity:

"The first class was unable to form a judgment on a new subject no matter how simple. He could judge well, however, on familiar subjects. Memory weak, although he observes a certain routine of occupation with scrupulous exactness. He is not liable to talk much of himself, but is liable to sudden paroxysms of anger.

"The second degree is even less capable to judge and act in regard to his accustomed occupations. He is exceedingly confused in regard to the place in which he is and the person with whom he converses, and is very generally at fault in regard to his ideas of time.

"In the third degree of imbecility there is more reason to apprehend danger from the individual affected with it; for he has delusions of the evil intentions of others, and is not only passionate, but suspicious and misanthropic. He frequently talks to himself. Thinking aloud, however, is no proof of imbecility."

J. Langdon Down considered " the best classification of idiocy, the one which most assists in the prognosis and treatment, is that which is based on its etiology. The whole of the cases may be divided into three important groups, which groups afterwards admit of subdivision. The primary groups are: (1) *Congenital;* (2) *Developmental*, and (3) *Accidental.*

"1. *Congenital Idiocy.*—The congenital group includes all those cases which at the period of birth manifest signs of defective mental power, associated usually with conditions of the head, skin, and other organs, which are indicative of a congenital origin. They are cases which have never possessed ordinary mental power. The congenital group contains the following subdivisions: (*a*) *Strumous;* (*b*) *Microcephalic;* (*c*) *Macrocephalic;* (*d*) *Hydrocephalic;* (*e*) *Eclampsic;* (*f*) *Epileptic;* (*g*) *Paralytic;* and (*h*) *Choreic.*

"2. *Developmental Idiocy.*—The developmental group includes a smaller number of cases, where the child is born manifesting an average intelligence through infancy, or even up to the commencement of puberty, but from causes which have influenced the nutrition of the embryo during its intra-uterine life, is born with a proclivity to mental break-down during one of the developmental crises; the crises being the periods of the first dentition, and of puberty. The group includes those cases in which speech and mental faculties are lost in children in whom previously the intelligence was good—cases where the brain and nervous power were sufficient for its early years, but insufficient to carry it through evolutional stages. They usually present outward signs in their cranium or elsewhere that the tendency to catastrophe was born with them. The developmental group embraces the following subdivision: (*a*) *Eclampsic;* (*b*) *Epileptic*, and (*c*) *Choreic.*

"3. *Accidental Idiocy.*—The accidental group includes all those cases of idiocy where the child has been born with a normal nervous system, free from any present or potential defect, when unfortunately a fall, a fright, epilepsy, the result of some peripheral irritation, disease of the bones of the ear sequential to measles or scarlet fever, meningitis, or other cause, may lead before puberty to mental breakdown—a breakdown not of a genetic, but of a

purely accidental origin. The accidental group includes: (*a*) *Traumatic;* (*b*) *Inflammatory;* and (*c*) *Epileptic Idiocy.*"

Down gives later a physiognomical or ethnological classification, *i. e.*, Caucasian, Ethiopian, Malay, Mongolian or Kalmuck, and what he is pleased to call the American Indian type. Based upon an idea of mere physical resemblance there seems to be no further analogy of racial characteristics, and it proves therefore more interesting to the curious than useful to the practical observer, more particularly as the Mongolian and Negroid types belong almost exclusively to the idio-imbecile or imbeciles of low-grade.

The Malay type I have never met. Of the American Indian type, in which according to Down "moral and intellectual characteristics can scarcely be said to exist," I have two cases, both imbeciles—one high-grade, remarkably bright, and the other low-grade, improvable. Down ascribes to phthisis the production of the Mongolian or Kalmuck type, to which he refers 10 per cent. of all cases of idiocy; but I find it occurring in only .09 per cent. nor do I find evidence why this special type should spring from phthisis rather than from other causes, as only about one fourth of my cases of Mongolianism had a phthisical history and with these there were various complications.

Again old age in parents has been considered a cause of Mongolianism, but I know of but one instance in which this could be ascribed, the father being 75, and the mother 48 years of age, the average age of parents being 36 for the fathers and 33 for the mothers. It is also said that last-born children are apt to be Mongolians, but I find of this but one case. Indeed I do not find data sufficiently reliable to affirm any one cause above another in the production of this type.

Ireland bases his classification on pathologic conditions. He says: "I found it was necessary to have some arrangement in order to say clearly what I wanted to say.

"Coming to the study of idiocy after having gained some experience in medicine, I have from the beginning viewed it from the standpoint of pathology; and my idea of idiocy is compounded of the following classes, which are generalized from individual existing idiots, who resemble one another by having the same or similar diseases, as they resemble the type of idiocy by having mental deficiency along with a corporeal disease.

"1. Genetous idiocy.
"2. Microcephalic idiocy.
"3. Hydrocephalic idiocy.
"4. Eclampsic idiocy.
"5. Epileptic idiocy.
"6. Paralytic idiocy.
"7. Traumatic idiocy.
"8. Inflammatory idiocy (the result of encephalitis).
"9. Sclerotic idiocy.
"10. Syphilitic idiocy.
"11. Cretinism (including the endemic and sporadic or myxoedematous forms).

"12. Idiocy by deprivation (in which the child is deprived of two or more of the principal senses—such as sight and hearing, with consequent enfeeblement or actual loss of mental power."

Shuttleworth, like Ireland, classes his cases pathologically. He says: "In connection with mental deficiency we find two main divisions of cerebral abnormality—(*a*) that arising from formative or developmental defect, and (*b*) that resulting from inflammatory or degenerative processes. Each class of abnormality corresponds, of course, to the broad primary classification of cases of mental deficiency into—(*a*) CONGENITAL and (*b*) NON-CONGENITAL. There is, however, a mixed class of cases in which the actual lesion supervenes upon a brain originally imperfect in development, and to such cases, occurring at a crisis of early life, has been given the name of DEVELOPMENTAL."

He goes on to classify congenital mental deficiency thus:

1. Microcephalus and other formative cerebral defects.
2. Hydrocephalus (congenital).
3. "Mongol" or "Kalmuc" type.
4. Scrofulous cases.
5. Birth-palsies with athetosis.
6. Cretinism (congenital).
7. Primarily neurotic.

He further sums up the non-congenital type of mental weakness thus:

A. Developmental cases:
   1. Eclampsic.
   2. Epileptic.
   3. Syphilitic (inherited).

B. Accidental or acquired:
   1. Traumatic } inflammatory leisons.
   2. Post-febrile } inflammatory leisons.
   3. Emotional.
   4. Toxic.

He further suggests that the term subnormal or mentally feeble be substituted for imbecile or idiot and feeble-minded.

The school board of London has adopted the following classification in the medical examination of children for the special schools:

"1. Those requiring special instruction.

"2. Those capable of continuing in the ordinary school.

"3. Those whose mental condition is too low for instruction, even in special classes. These last are excluded with a recommendation to their friends to obtain admission for them into an institution for imbeciles."

Kerlin follows Griesinger in naming two conditions of idiocy—the apathetic and the excitable—classing as idiots "those whose intelligence is so slight as to be subjects for habit training only in life-long asylum care." He adds: "I have thrown the class *imbecile* into three groups—five or six might have been made—the individuals of the lowest dropping almost into idiocy, are susceptible of some culture of the hand and eye, have a slight command of

language, sign or vocal, in communicating their desires and a low degree of attention, imitation, etc. The middle grade imbeciles are much superior to the low, while the high or best grade are possessed of all the attributes of intelligence in a limited degree; they are taught to read and write in some instances fluently, to calculate minor questions of arithmetic, and approach the lower range of common intelligence in their relations to life as found among the ignorant; in their most advanced grade they are lacking only in those powers of discrimination, judgment, and will power, the attributes of a sound man; if they exercise them at all it is in mimicry of associates and superiors, rather than from their personal possession. I also recognize a condition analogous to *excitable* idiocy, among *imbecile* children whose mental powers are susceptible of normal development, but whose will power and discrimination of right and wrong seem to be strangely perverted from infancy. I have chosen to call these, instances of juvenile insanity, following for the name the excellent lead of some distinguished writers".

These classes and grades are thus represented in tabular form:

Apathetic idiots.
Excitable idiots.
Low grade imbeciles.
Middle grade imbeciles.
High grade or first imbeciles.
Juvenile insane imbeciles.

This last—the juvenile insane imbecile—being not a *type* but a *combination of disease and defect* which might have place in any and every grade of imbecility, Dr. Kerlin must have recognized as illogical in a classification, for he later adopts the term moral imbecile, as used by Howe and Seguin to designate that form of defect displayed in the moral nature which may or may not be associated with mental defect, but amounting often to a total absence of the moral sense. The portrayal of this as a distinct type, and his insistence upon the imperative demand for it of perpetual sequestration, constitutes Dr. Kerlin's chief contribution to the work.

His subdivision of the imbecile class is clearly along the line of Seguin's indications that the primary aim of classification is to attain a gauge of mental capacity that shall facilitate training. In his third or high-grade imbecile, which answers to the simpleton of Howe, he fills the hiatus between the second order of Seguin's and the feebly-gifted or backward, which Seguin alludes to, but which is not included in any of the classifications we have been considering.

In a study of these various authorities, by comparing the aim of the one with the apparent aims of the many, and these again with the data which experience is daily contributing, we naturally seek to find points of agreement in classification seemingly opposed; to reconcile apparent differences; to weigh carefully scientific and practical values; and gradually by a process of elimination and condensation to arrive at a classification which, as addressing itself to the needs of the greatest number, shall further the best interests of the work.

That the pathological classification of Down, Ireland and Shuttleworth is valuable, none will deny, for it is to the pathology of idiocy that we look for light in etiology, diagnosis, and prognosis, but pathology needs still to pursue its invaluable work of the collection of facts regarding idiocy, for as yet its researches in this field have not gathered sufficient data on which to base authoritative opinion.

As far back as 1877, H. C. Wilbur discussing classification before the Association of Medical Officers of American Institutions, while endorsing the pathological from a medical standpoint, adds: "It should be borne in mind that the essential fact of idiocy is the mental deficiency; that the actual work of obviating the condition is an educational one, using the term in a broad sense; and if any favorable effect is produced upon abnormal organic states, it will ordinarily be through the reflex action of properly adjusted mental exercises. Incidentally, we notice the associated pathological conditions or complications, less from their supposed relation as causes of the idiocy, but as interfering, to a greater or less degree, with our efforts at instruction or training. The manifestations upon which we base our prognosis are more subtile than the accompanying conditions of microcephalus or paralysis, or others that form the basis of any pathological classification.

"Do we not need some effective form of description of our cases; some generally recognized tests of physical and mental condition that will show, in the first place, the starting-point in the pupil's career, to which reference can be made from time to time to test their absolute or relative progress? Do we not need some mile-posts in the educational path to the same end?

"I commend, then, to your attention the hitherto undefined and unrecorded signs and features of mental and moral condition, the peculiar habits of the different shades and grades of idiocy, that at our next or some future meeting we may be able to agree upon some form of classification that shall meet the need of which I have spoken.

Not only do we find it necessary to have sound argument in order to say clearly what we want to say, as Ireland expresses it, but we must consider the large number to be enlightened through this argument; and furthermore that the general public, the parents, and the teachers and attendants engaged in the work need a classification that shall be an exponent guiding them away from the fallacy and delusion of cure, into the actual possibility that the child always defective, may yet accomplish. Experience has made clear and has gradually evolved a consensus that our one great aim is not cure, but a threefold protection. Protection of the helpless from want; of the irresponsible from ignorance, vice and the penalty of crime; and lastly, the protection of the family and the state from the evils of association and of certain increase. To accomplish this, we must address the public in terms that he who runs may read; and in terms, moreover, that do not offend the sensitive. It is upon such principles, whether avowed or unavowed, that in America the expression feeble-minded has come to be the term covering every phase of mental defect, and our training-schools have increased as they never could have done under the misnomer of schools for idiots. Not only is its meaning plain and there-

fore acceptable to the popular mind, but it forms a logical basis for the reasoning of both physicians and teachers. It is broad and covers much, is easily understood, and best of all it is true. All are feeble in varying degrees, needing various modes of treatment or of training; and as aids to treatment and training many of the terms used in the different classifications are undoubtedly invaluable.

The first step in a scheme of general protection is naturally to consider the helpless and the untrainable; and what more natural than to class him according to the literal meaning of the word in the original Greek, as *idiot*—one solitary, alone, and therefore needing for life, care in asylum. There, whether excitable or apathetic, we place him, and can study him and treat him under all the forms enumerated. But whether he be microcephalic or hydrocephalic, paralytic or epileptic, Mongolian or Ethiopian, he presents the lowest form of mental defect—idiocy—and we can make the public understand that as such, he is absolutely untrainable, often unimprovable.

In the next class we find those who are to be protected from ignorance and vice. Protection from ignorance presupposes a capacity for sense training, and for adaptation to environment, varying in degree from ability for the very simpliest offices of self-help or aid to another, to that of a certain dexterity in the industrial and manual arts under direction. He may be fool or simpleton, he may or may not be lacking in power of speech or of locomotion, yet always he is feeble, vacillating, needing a support, a staff—therefore *imbecile*. Thus experience and reasoning have brought us from the generic title feeble-minded, to its two large subdivisions, idiot and imbecile, which indicate according to the strict meaning of the words in the original tongues, one, the solitary, the other, the totterer; and which separate therefore our helpless and untrainable from our unstable but nevertheless trainable and possibly helpful class. These two states are naturally traceable to nervous conditions, also distinct and different, due to causes congenital or accidental, and here is entire accord with the foundation of Seguin's argument.

The protection which society demands and needs to be advised of is, first, from the burden of the untrainable idiot both in the homes and training schools, and also in the institutions designed for other kinds of defectives, *i. e.*, those for the blind and deaf-mute; second, from the disadvantage resulting from the intermingling in the schools of normal with backward children; third, from the mischief which whether trained or untrained the irresponsible imbecile is liable to perpetrate if unguarded; still more from the tragedies certain to be enacted by the moral imbecile and above all else, protection from increase of an evil growth which if unchecked is inevitable.

These considerations, the outgrowth of practical experience and of necessity for response to frequent appeals for just such information, has led the author to formulate an educational classification, giving the extremes, and intermediate grades of mental defect, and not only defining the status of the individual, but indicating methods of training together with future possibilities.

EDUCATIONAL CLASSIFICATION OF THE FEEBLE-MINDED.

Asylum Care.

IDIOT.

Profound.	Apathetic. / Excitable.	Unimprovable.
Superficial.	Apathetic. / Excitable.	Improvable in self-help only.

IDIO-IMBECILE.

Improvable in self-help and helpfulness.
Trainable in very limited degree to assist others.

Custodial Life and Perpetual Guardianship.

MORAL IMBECILE.

Mentally and morally deficient.
Low Grade: Trainable in industrial occupations; temperament bestial.

Middle Grade: Trainable in industrial and manual occupations; a plotter of mischief.

High Grade: Trainable in manual and intellectual arts; with a genius for evil.

Long Apprenticeship and Colony Life Under Protection.

IMBECILE.

Mentally deficient.
Low Grade: Trainable in industrial and simplest manual occupations.

Middle Grade: Trainable in manual arts and simplest mental acquirements.

High Grade: Trainable in manual and intellectual arts.

Trained for a Place in the World.

BACKWARD OR MENTALLY FEEBLE

Mental processes normal, but slow and requiring special training and environment to prevent deterioration; defect imminent under slighest provocation, such as excitement, over-stimulation or illness.

THE VALUE OF INSTITUTION MEETINGS

C. EMERSON NASH, VINELAND, N. J.

As it is necessary for best results that all organizations should have a place for convention, where experiences are exchanged, new modes of procedure advanced, and ideas and suggestions are presented, just so much more is it necessary that each institution have its own subordinate meetings, where the executive heads, teachers, attendants and other employes can talk freely on questions relating to their each and varied departments.

If there was no actual help to be gained from the superintendents' meetings as they convene from year to year at the different institutions thruout the country, such meetings would soon be things of the past, and in a very short period of time be entirely forgotten, but such is not the case. It merely substantiates the old story that two heads are better than one, etc.

It is an exceedingly unfertile mind that has not at least one good, practical suggestion to make that will be helpful to many. On the other hand, questions are often raised that are of absolutely no importance in themselves, but in their discussion bring forth hidden points which are invaluable, and otherwise might never have been known,—so we find that even the dunce, if you please, may thru a foolish question revolutionize the whole system of any training.

My experience with institution meetings has been entirely with those held at the New Jersey Training School, and these are the ones of which I wish to speak. It would be a difficult matter to estimate their value, not only to each individual, but to the institution as a whole. In no other way could we have gained the hearty co-operation of our employes except thru these meetings.

The most preparation is given to our teachers' meetings, and because of that I will give them first place. However, the meetings of the executive heads, the general employes' meetings and the farmers' and attendants' meetings are so closely allied that I can hardly say from which the most benefit is derived. Our teachers' meetings began five years ago, and were of such an order that they could hardly be classed as meetings. They were rather social gatherings. However, the idea of getting the teachers together in a social way even was a good one, for co-operation is necessary in the carrying out of any project, and as you can see, at these gatherings the teachers unconsciously became interested in what the others were doing, and so from a beginning of seemingly no value our present ideal system of meetings has grown until now they have become a permanent factor in our training school life.

The second year it was thought advisable to devote four fifty-minute periods weekly, the meetings taking place Monday, Tuesday, Thursday and Friday afternoons, from 5 to 5:50, in the teachers' sitting-room. It was the duty of each teacher to bring every two weeks some article bearing directly

on her line of work. For example, the kindergartner read something in regard to kindergarten work, the music teacher something on music, etc.

This plan proved quite successful, only we found our meetings were becoming too frequent to hold the interest of all; however, they were continued thru to the end of the year, and many lasting impressions were made which aided greatly in the work of training. But something seemed lacking. The interest that should have been taken was not there, and towards the end they became a duty rather than a privilege and pleasure.

Last year we turned to the old plan of one meeting a week, holding them Friday evenings from 5 to 6 in the superintendent's private office. This privilege alone had its good effect upon all. They felt immediately that their position in this institution amounted to something of more than ordinary importance.

It is true that the idea of special privilege works to a certain extent with bright minds as well as it does with the feeble-minded. Our success last year was not, however, because of the place of meeting, altho it did have considerable to do with it, but the keynote was the different plan of action that was followed out during the entire year. Each teacher had a paper to prepare and read on a subject given by the superintendent. The following is a partial list:

"How Shall we Reach the Slow Children?"
"Effect of the Hand on the Brain."
"Play as a Factor in Physical Culture."
"What can we do for our Children?"
"Special Senses, etc."

A great deal of thought and consideration were given to the preparation of the papers, and each, if it had been possible, was well worth publication. One paper was read and discussed every alternate week. The intervening week the superintendent either read or talked on questions pertaining to our work. At times the whole meeting was given up to the discussion of the paper read the previous week, or to questions that might have arisen in the regular routine of school work. On the whole, the year was decidedly satisfactory. If you would know a subject thoroughly, write a paper on it.

This brings us up to the present school year.

As you no doubt know, we are preparing a six weeks' summer course for public school teachers, and during the year the outline of work to be given our summer teachers was given our regular teachers. It consists of a course of lectures under the following general outline:

The work as related to the institution.
The effect of this class upon society.
What the feeble-minded are, and
The specific lines of training.

A carefully selected course of reading was followed thruout this period. Notes were taken and kept systematically, discussions were frequent upon points that were not thoroughly understood, and an occasional period was given to quizzing.

At the close of the school year a written examination was given, and all passing satisfactorily were granted a certificate signed by the president of the board of directors, superintendent and principal of the school department. Not only have we made our teachers more efficient in their work, but we have put the course in such shape that it can be given to the summer teachers in a much more satisfactory manner than could have been done otherwise.

Our monthly meetings of the executive heads have become of great value to our institution. Here all relative questions from each and every department are talked over in a decidedly open manner, in fact, all topics are discussed freely and without question, even to personalities, as for instance in the awarding of diplomas for institutional efficiency. Every employe having been in the service of the institution for two years or more is eligible. Our idea is to keep our best people as long as possible and to show them our appreciation of their work.

The ordinary institution man or woman, tho efficient in his or her line of work, works on and on for years and in the end has nothing to show for it. Their schooling is very limited, perhaps, yet in all justice they are as much entitled to a diploma for the specific work they are doing as the college graduate when he has gained the requisite knowledge. So it matters not how high or how menial a position an employe may hold, so long as he is competent in his line. The attendant stands an equal chance with the teacher, the dairyman and cook with the supervisor and chief engineer. The diplomas state the character of the position.

The following is a partial list of questions that are taken into consideration and voted upon by the executive heads whenever an employe becomes eligible for a diploma.

The maximum number of points is 100 and anyone receiving less than 70 or less than half of the allotted number of any one question, fails.

For loyalty to the institution are given	10	points
Ability to train	8	"
Ability with special cases	4	"
Willingness to receive instructions	7	"
Tidiness of surroundings	7	"
Personal morality	5	"
Personal disposition	4	"
Ability to entertain, etc.	5	"

There are 16 questions in all, varying from 3 to 10 points. Each question is discussed without reference to personal feelings, after which a vote is taken and the average number of points awarded.

Perhaps this could not be done if it were not for the harmony and co-operation that exist, and even that would never have been so complete except for such meetings as these.

Our general employes' meetings are held the first of every month, usually a day or two after the executive meetings. At this time the superintendent talks on the questions of general importance to all. Oftentimes the president or some member of our board is present, thus adding to the interest

of the meeting by making a few remarks. A number of questions are always found in the question box, and except when of a personal character are given consideration.

A few vital points are always mentioned such as the careful usage of matches, economy of time, heat, light, water, the proper care of children, etc. I wish to say at this point that the fundamental idea at these meetings is encouragement. Anything which might be interpreted as scolding is reserved for a private interview. The interest in these meetings is increased by the awarding of the diplomas for institutional efficiency.

Our farmers' meetings have been a profitable means of formulating plans for the spring and summer. All interested in farm work are eligible to these meetings, and often our neighboring farmers are invited in. Certain subjects are announced weekly for the following meeting, thus giving each one a chance to gain what additional knowledge he can, and have it in readiness. The subject of onions took up nearly one whole period. It seems a small thing, and of not much importance, but after our discussion, we found it was a subject of vastly more importance than we had at first thought. Everyone knew more or less on the subject, but had never given it careful thought,—however, the question of variety and kind most successfully raised in this locality was discussed. This was followed by the questions regarding the best fertilizers to use, when to sow and when not to sow seed,—when sets should be put out, kind of soil for best results, etc. Finally leading up to past experiences, as, "How many did we harvest last year?" "Was it sufficient?" "Should we not have more?" "How many have we planted?" "Considering the healthfulness of the onion should we not have even more than ever before, etc."

We then found thru the storekeeper that there had been calls for onions nearly every day of the whole year, in consequence of which we decided to plant about four times as many as at first intended.

The question of soiling for cattle is also an interesting one, and is of unlimited value to any institution having small pasturage. The routine of green fodder must follow each other in a systematic manner or there will be periods during the summer when nothing of the kind is available.

The same general plan is followed out in regard to fruits, dairy, poultry and hogs; in fact, everything coming under the head of farming. This meeting is also held in the superintendent's office.

A set of cards is being made up from these meetings by keeping the practical point in as concise form as possible, and each under a separate heading, as for example:

RHUBARB

Variety that does best in New Jersey soil.
When and how to plant.
Fertilizers to use.
Protection of roots during winter.
Kind of attention required in spring and summer.

Length of time a plant will live and give a profitable yield.

Is the nutritive value sufficient to raise it in any quantity for our children?

These cards will be of no special value this year, but will be in the years to come.

Some may be interested to know about the daily card index which we are making use of here. We have a set of three hundred and sixty-five cards, allowing one card for each day of the year, on which notes are made of things we should know about, but are liable to be overlooked. For instance, I take the cards for the entire month of April and looking at April first find this statement: "First planting of peas "03," and immediately we set about to find if the peas have been planted this year as yet, and if not, why, etc. On April second the card of the previous day goes to the bottom of the pack, and I see before me "Bird Sunday, to be celebrated April 15th." Thus thirteen days are given in which to make preparations. Perhaps on the same card will be: "First scullions of the season issued '03." "Kite time" etc. Thus each day thruout the month is taken up in regular form. In the meantime, adding from day to day the things which should be remembered another year.

Another plan in aiding the memory is this: Oftentimes in going thru a department there are many things we wish to make some mention of to the person in charge, but because of other things in mind fail to see the essential thing perhaps, and pass on regardless. In view of these facts we take a card for each department and write on it an outline similar to the following:

DAIRY.

1. Tidiness of barn and surroundings.
2. General condition of cows.
3. Is the balanced ration of right proportions to give best results?
4. At milking time has every boy his milking suit on? Are they careful to wash their hands and also the cow's udders before milking?
5. Amount of feed on hand.
6. Are cattle out-of-doors a sufficient amount of time each day?
7. Sanitary condition of milk house, etc.

It may not be necessary for me to look at these more often than once a week; however I find it a good plan to always have them with me.

Briefly, I wish to call your attention to one more meeting only. This is the attendants, called together by their supervisors. I wish to state that better results are apparent, and the people work together more harmoniously in the cottages where the meetings are held, and not only that, but the supervisor is made just so much stronger in the estimation of his subordinates. Thus he is training himself by training others, and the institution is the possessor of a more efficient man.

We who are co-operative workers in this grand and noble work, should, as we find good and helpful things, pass them on, that others may be benefited thereby.

My chief aim, therefore, in the preparation of this paper has been to advance some thoughts or ideas which may help to answer some of the perplexing questions that often arise in our institutions.

The ultimatum of all training is the greatest good to the greatest number.

DISCUSSION

Dr. Murdoch: In regard to Mr. Nash's paper, I would say that it was very interesting to me. There is nothing we can do of greater importance than to cultivate an esprit de corps in the personnel of an institution which Mr. Nash states seems to play an important part in the New Jersey institution. The nurses or attendants, if you please, are the ones who come in closest contact with the children. They are with the children when the superintendent is engaged in executive duties, with his trustees or perhaps the parents. The attendants are the ones who most nearly take the place of father and mother to the children within the institution, they are with them day and night, and it is of the greatest importance that they be encouraged to look upon their business as one of importance, to realize their responsibility and take an interest in the institution, and especially in their children. The training schools for nurses which are being established in many institutions are an excellent thing. I have reason to believe from what I have heard that Dr. Rogers has an excellent school of that character in his institution. I believe the graduating of nurses encourages them and brings to the institution a better class of young men and women than we can get without these schools.

President Johnstone: Is there any further discussion?

Dr. Wilmarth: I think the card system referred to is a most excellent one. It has never occured to me,—I have never used it, but I have suffered inconvenience in picking up details on the way, and in coming away and forgetting the very thing I went for. I think the idea is an excellent one, and the paper indeed, is full of little practical points, small perhaps in themselves, but helpful. I am very glad to have heard it.

Dr. Rogers: Unfortunately I missed hearing most of Mr. Nash's paper, but one thought suggested itself to me from what was just said with regard to the intimate relation between the children and attendants or nurses. By getting these people together and getting them to talk or write of their experience with the children, we thereby obtain the most valuable knowledge of the children that is to be had. I don't know but I have alluded to this before in our meetings and I think that all of you have had the same experience, that it is very difficult indeed to get the nurses or teachers to tell actual facts as to individual experiences with individual children, except when they are doing it in a social way, and I have often thought that if we could have a stenographer behind the door and could bring in the nurses and teachers and have them discuss their work without their being conscious of the fact that everything they said was being taken down, we could get some exceedingly valuable matter. I know in our teachers'

meetings which we kept up for a number of years, whenever papers were called for—we usually had the teachers write their papers and read them in succession, one one week and another the next and so on through the year,—they were nearly always so general in their descriptions of the work that there was not one-half the good obtained from them that there would have been had they simply stated what the children did and why they did it, without trying to moralize or generalize. Just the moment we dropped the papers and the conversation became general we had a most interesting teachers' meeting. When the meeting was informal many most interesting facts were brought out about the characteristics of the children, perhaps some peculiar trait of a child, or other characteristic of the greatest interest which never would have been mentioned in a paper.

We never have been able to do much in the way of an experience meeting with the nurses' training class, but it is a feature we want and intend to develop. I believe there is nothing that would be such an inspiration to our nurses and attendants whose lives are a weary routine and upon whom fall the little annoying details of the work, as the careful noting of personal characteristics of their children with a view to class discussion. This plan certainly should be introduced into our training school work. Speaking of training schools, perhaps it would not be out of place to say that our experience here is, that it is exceedingly difficult to get our men interested in any of the class work. It has been by most persistent effort and by carrying them along sometimes three or four years instead of finishing up the work in two, that we have been able to graduate our men at all. The young ladies take much more interest and we have good classes each year. Last year, I think, was the only one in which we did not graduate a class. Of course, this difference is very natural, because it is a part of the feminine instinct to care for children, and it is not a part of the male instinct. Occasionally we have been able to get a good male helper who would take an interest in the training class, but this has been the exception. I do not know what the experience of the other gentlemen present is. I remember last year when some of us visited the National Hospital for the Insane at Washington I had a talk with one of the physicians at that institution who said his experience had been exactly the same as ours, in fact, they had given up entirely trying to graduate men. They hire just as good men as they can get and if satisfactory they keep them, if not they let them go, so they have a somewhat drifting class of men, but with the women they carry on a training class the same as other institutions for the insane are doing.

Dr. Mogridge: In our graduating class we had three ladies and no men. The women attendants stay with us quite a while. The wages we pay are quite good and are attractive to women,—twenty-seven dollars a month and thirty dollars a month and board and washing for young women will keep them and keep them for some years. We pay the women the same as the men, we make no distinction on account of sex. There are times when the men work for that but they are more restless and move about more. And

then again they don't like to appear before the ladies as being taught and they drop out of the class. Our experience on that point is the same as yours. While we give them training, it is against their wishes.

President Johnstone: I feel that I ought to say a word as to the informality of the meetings we hold. The effort is made to make them as informal as possible. I was told by the president of our board that I would find discipline lacking if there was as much informality as I set out to have, but I have not found it so. For example, at our farmers' meetings a box of cigars is passed around, and I think that the cigars are well paid for by the fact that it puts the men all at home. They sit there and smoke and talk, and there is no noticeable head to the meeting. Everyone asks questions, and all I have to do is to be on the alert not to let the thing fade away or die out. That same informality, although not with the cigars,—that same principle is carried out in all our meetings, excepting the formal monthly employes' meetings. Those are necessarily formal.

In reference to the difficulty spoken of by Dr. Rogers in getting the teachers and attendants to bring out the facts regarding their work, we have tried to help them by asking them certain definite things in regard to an individual child. The teachers and attendants are not conscious of the fact that these questions are being asked under a certain form, but I have a list of questions that I know of that I keep passing out, and the head of the school department or assistant superintendent all have certain questions, certain routine questions that we keep asking from time to time in the course of the meeting, such as, "Does this little girl like to be with the boys?"; "How does she get along with her companions?"; "Is this boy inclined to make fun of those that are with him?" and a hundred and one little points that all go to show a child's standing and ability in the department. It doesn't take very long to get the folks into the way of talking about those little things, those things which, as has been said, are not considered to be of sufficient importance to be mentioned in a paper at all. I have just one thing more to speak of in the line of what Dr. Rogers said in regard to the graduation of men in the nurses' class. We find also that the men are not very much interested in things that require apparent education on their part, things that bring out their ignorance, little things. They don't take any interest in them, and don't want to have anything to do with them, so we are not giving a course of study similar to that given by Dr. Rogers, Dr. Murdoch or Dr. Mogridge, I believe, but are keeping tab on all our employes, and then at the end of two years granting diplomas for general institutional efficiency. And that tab covers practically all of the points excepting the fact of their taking the studies and quizzes, and those studies they must make a certain record in, up to a certain standard during those two years' time. This goes to all the employes in the institution under the official force. At our last meeting, the janitor received a diploma for efficiency as an institutional janitor. The meeting before that the fruit man, the fruit hand, we might call him that is on the farm, received a diploma. He stood there before the rest of the employes and received his diploma with tears in his eyes. He said to

me, "This is the first time I ever had a diploma in my life." So that these people feel their ignorance and in this way feel they have an opportunity to get hold of something that can be framed, as some of them have done, and put up on the wall in their rooms. It means as much to them as the diploma of a graduate of a law or medical school.

A BORDER-LINE CASE—ON THE RIGHT SIDE OF THE LINE.

BY DAVID F. LINCOLN, M.D.

IN visiting one of the "special" classes maintained for backward and defective children by the Boston School Board, in 1900, my attention was called to a boy of fourteen, who seemed unlike the others. Among a group of children whose physical defects well matched their dullness and silliness, he alone was dignified, self-possessed, and keenly and intelligently observant of everything that happened in the room; although exceedingly backward in his studies. I subsequently learned the following details in his case:

The boy's father was capable, but a drunkard, and died of consumption when the boy was four years old. A well-to-do uncle had never been able to learn to read. The mother, brother and sister were intelligent and capable. The boy was slow in learning to talk, and at the age of four used only the simplest words, as mama, papa. As a child he was delicate, suffered from throat complaints, and in school was excessively dull and sleepy, and made no progress. Adenoids were removed, at the age of twelve, without improvement in scholarship. Two years later, by advice of his family doctor, he was sent to the Massachusetts School for Feeble-Minded. He was not seen by Dr. Fernald at that time; but he decided for himself that it was no place for him, and on the fourth day ran away home, a distance of ten miles, and was not sent back, but was placed in the special class where I saw him.

His teacher had found it impossible to associate him in work with any of the other children, but by brief individual attentions she had already made him a great deal more active and wide-awake. She taught him the Indian clubs, which he wielded skillfully. He played base-ball very well with his neighbors, and was practically free from physical defect. His growth was retarded, in fact, seemed at a stand still, and at the age of fourteen years and nine months he was only four feet seven inches and one-half in height, which is four and one-half inches less than the average. The "pre-pubertal acceleration" did not show itself until three months later; and then the gain was very satisfactory, reaching five inches in eighteen months. During the time of this quick growth he was taking thyroid extract, but as growth

had commenced to be observable before the drug was used, it remains doubtful whether the thyroid acted as an accelerator. It certainly was a moral help, which he greatly needed, as he had suffered deeply from the ridicule of his companions.

I had taken it on myself to offer him personal instruction, and saw him in my room perhaps eighty times or hours beside his regular class work. I found him quite clear in understanding elementary arithmetic, and it cost little trouble to show him the principles of fractions so as to be able to add five and seven-twelfths and six and two-thirds and nine and one-half. Bending most of my efforts to improving him in reading, I submitted him to a grammar school master eighteen months later, and found him able to read *at sight* ten lines of Dole's "Young Citizen" with ease and intelligence, which was said to be equivalent to sixth or seventh grade performance. He was certainly not up to third grade work when he began.

At the age of sixteen he had to be discharged as having reached the limit of age. He entered a store, where he got three dollars a week and gave satisfaction. Two years later he left his place on account of illness, but he is now strong and hearty, is in the state militia, and is quite proud of his continued growth in height, having now reached five feet five inches and one-quarter, at the age of nearly nineteen.

Severe difficulties were encountered in teaching him. He had a skillful instructor, trained at Barre, Mass., and these difficulties so impressed her that she could not help thinking him feeble-minded. I always insisted on the contrary, and I had later the pleasure of confirmation from Dr. Fernald, but it was very easy to show good reason for belief that his mind lacked something on the linguistic side.

To me the case appears rather one of tardy growth than of positive defect. To this tardiness, which in itself was an obstacle to success in school, was added the stupefying effect of adenoids—the "aprosexia"—which lasted for years. When they grew tired of him in the primary grades he was promoted to a grammar grade, and there made a temporary shift to keep up by dint of a knack at catching the sense of what was going on, without exactly reading the book. He was never specially attended to, and his defects grew worse.

These defects when I first saw him, were the following:

1. Positive inability to follow my instruction for more than five minutes without complete exhaustion, shown by physical signs. By degrees he became able to apply himself satisfactorily for a full hour at once.

2. Memory very poor in all that related to the art of reading.

3. Defective power of distinguishing the vowel sounds. He could not distinguish between ê, â, and î with any certainty, nor isolate and reproduce a given sound. He knew the word *hat*, but could not draw the inference as to how *mat* or *pat* should be pronounced. Neither could he join sounds to form a syllable, or syllables to form a word. These defects were at first apparently pathological, but they have mainly disappeared under instruction, and I think they were largely due to lack of training. A fourth pecu-

liarity was his annoying habit of guessing at the import of a printed word: he would read "March" instead of April, "arms" for hands, "oh dear" for order, "Africa" for America, "places" for spots, "grasped" for seized. This habit may have been the legitimate out-growth of exclusive use of the "word method" in teaching reading. At all events, he was by degrees taught phonics, with excellent results.

5. Certain mental preoccupations made him unable to say wasp (he called it wops); when asked to say manger he called it inevitably mangle. But these queernesses disappeared.

These matters may be commonplaces. Their importance lies in the fact that they led some trained observers to believe the boy feeble-minded, to his great injury and suffering. In concluding these remarks, I wish to mention those points in him which, taken together, indicate that he was not of the feeble-minded type.

In the special class he was alert and observant of the doings of those around him; was kind and tactful with the children, and very helpful in assisting them on proper occasions, as in gymnastics. He invented useful little plans for aiding them to learn to write. His address was modest; his manner reserved, not childish; his affections normally responsive, but not lavished. Apart from books he was purposeful, reliable, sensible, understanding the world about him as well as his playmates, and impressing those who met him (except his teachers) as a normal boy. His tastes are for the theatre, gymnastics, ball play, and local politics; he interested himself actively in a petition to the city government relative to play grounds. His logical powers and his comprehension of arithmetic are good. His conversation takes spontaneously a wide range, and is that of a fairly intelligent boy. I have never known him to do an injudicious act, to say a foolish thing, or to fail in good manners.

In this summary of favorable traits, I venture to suggest that we are nearer to the true criteria of feeble-mindedness than we are if we rest a verdict on scholastic tests. They belong, in a word, to the type of person who can take care of himself.

DISCUSSION

President Johnstone: I am very sure the association would be glad to extend the privileges of the association to the gentlemen who are present and welcome them to all of our gatherings.

Judge Gould: Mr. President, if your invitation is to discuss with you any technical work that you gentlemen and ladies have to perform, I shall be unable to contribute anything. I listened with a good deal of pleasure to the paper that was just read regarding the case that was deemed to be on the border-line. It raised in my mind this question: How much attention can you in an institution of this kind with your large population, give to each individual case? Take the case referred to. There was a young lad who was in need of that personal and constant attention which it would seem to be

impossible to give to each of the inmates of an institution of this kind. Is there any way in vogue or can any way be contrived by which these individual cases may be taken up for the purpose of developing any latent powers that they may possess. It is of course well known that there are all grades of intellect within as well as without these institutions, and when a human being is so deficient in intellect that it is found necessary to send him to an institution of this kind, he ought not to be thereby precluded from receiving that personal attention and assistance that is necessary to develop the best that is in him. It has occurred to me that there might be some inmates of these institutions who are simply deficient because they have not had that personal attention which was necessary to bring out the best that was in them. May you not have, for instance, in this institution some who, if they could have this personal attention, might develop into self-supporting citizens? This fact has suggested itself to my mind in connection with this paper. A course of that kind would necessitate great patience on the part of somebody; it would require perhaps a larger force of employes in the institution. It is probable that you might classify them so as to reach perhaps a class who might not belong in the category so far as their mental abilities go. You could distinguish of course, between those for whom there is no hope,—no possible hope, and those for whom there is some hope. How much is being done, and how much can be done along the line of this personal attention to each individual in these institutions?

Dr. Thompson: In answering the question of Mr. Gould, I will say that as far as our work is concerned in Missouri, while our institution is young, and our school work has only recently been commenced, we endeavor when we receive a child at the institution to make a special study of his condition so that we may classify him and place him where he rightfully belongs. If, upon examination we find that he is backward or feeble-minded, or whatever his condition may be, we endeavor to give him such special attention as his case may require. Now it may appear that having so many inmates in the institution, that that may be impossible to do, but I have in my experience found that teachers are always perfectly willing to give every child all the attention that was required, and we have never so far placed so much work upon our teachers but what they were able to do this. I think the question asked by Mr. Gould is well worth an answer. It is an inquiry into what we really do in our institutions.

Dr. Rogers: The question that the Judge has raised is a very pertinent one, and one that is very often raised. It involves quite a number of considerations. In the first place it is true that no person upon a cursory examination of a child, can tell what his possibilities are. It is only by working with a child a greater or less length of time that they can be determined with any degree of accuracy. It is true that an idiot is usually recognized at once, but there are many individual children whose mental status is not easily recognized. It is often very hard to draw out their latent possibilities and so to determine them, and in a large institution it is sometimes a serious matter just how a child should be classified. This brings us to the consideration of

another important question which is often discussed, and that is, that very much depends upon the personality of the people in direct charge of the children wherever they are sent. I know I am always particularly alert to know if any child in any department, may not be susceptible to further development by a change of environment. I believe we have in our large institutions many children assigned to the custodial department that if they could have closer personal care and instruction would be improved to a much greater degree.

Now on the other hand we are obliged to keep in our training schools proper, many children that we do not believe actually belong there, when we consider the good of the whole. Why? Because an institution supported by the public is in a measure obliged to consider the sentiment of individuals, and we often have to deal with people who insist upon a certain amount of systematic training for their children, even when we know that it is absolutely useless, and in such cases the children are kept in the training school simply because of the satisfaction it affords these parents. Then again, there are the children spoken of, of the type referred to by Mr. Lincoln and to which the Judge referred. While I did not hear all of that paper I got just enough to get its general character. These children are always so persistent along some particular line that it makes their possibilities evident sooner or later. I know of one instance in Iowa where a boy was generally considered an imbecile beyond all possibility of education in the public schools, who became an exceedingly successful man,—a salesman for a large Chicago house, but there was something about that boy, that while on first appearance he was considered feeble-minded, kept coming to the surface. There was a persistent following of certain lines that would never down, and after a while it was recognized that he had force of character and that when he started to do a thing he did it a little more slowly than others perhaps, but did it right.

So with a child in an institution, if he really has actual ability, it will show itself after awhile. In any of our institutions whether large or small, where the management is at all on the alert, and where the individual employes,—attendants and nurses, are at all qualified for their duties, there are probably very few children of the type mentioned in the paper that are passed unnoticed.

Where a child is typically feeble-minded, it means that there is an arrest of the mental development. For a course of years the natural faculties of the child have not been exercised and consequently sensations that are constantly produced in the normal child and that leave impressions upon the brain from which ideas are afterwards developed, do not leave such impressions. There is lack of sensory activity, and as a result there is nothing upon which to build up knowledge for the future which exists in the normal child. Now if the sensations that are registered in the brain of the normal child are not registered upon the brain of the feeble-minded child, and the latter passes through the years of its first development up to seven, and then through the next period from seven to twelve, in this way, it is unreasonable to expect that the lost time can ever be made up, because it would

mean that the brain activities of that child must be many fold more active than those of the normal child, to acquire this foundation for ideas and knowledge in the future. In the case of the border-line child those activities while not as many as in the normal child are numerous enough to have left their impressions and then he possesses that something which we call good common sense,—which we speak of as judgment, that has developed to a certain extent in that child, which is absent in the typically feeble-minded child. There is a persistence of character in these cases that makes itself felt sooner or later.

Dr. Wilmarth: If I remember the paper rightly this child did not stay in the school for the feeble-minded any length of time. He left before he had any chance to have something made of him, or any judgment could be formed. I think all of us have seen one or more cases of that kind. I have in mind two or three cases that have come under my observation,—one especially where natural obstinacy caused the trouble. In all probability if this boy had stayed and been under the observation of Dr. Fernald long enough to determine his character, he would have been discharged. As a rule cases are not retained in institutions that do not rightfully belong there. These children are sometimes called border-line children, but I may say that in spite of bodily growth and increased experience, they never acquire, as Dr. Rogers has said, sufficient judgment to carry them safely on their way.

Dr. Thompson: I would think that this boy, from his description would have been a proper person for an institution of this kind. While the outcome in this case was favorable, and such as we would desire, yet, I know of a number of cases of children that were considered backward that were placed in school where they did not improve and became the subjects of the jokes and sport of the normal children. As a result they became discouraged and ran off and left school, their parents being unable to keep them there. The consequence was that they grew up without an education and often-times fell into bad company and became wrecks. Now it seems to me that our institutions would be the proper place for children of that kind. We would take them in and instead of being backward they would be otherwise in comparison with the other children. We could give them special attention, we could develop them faster than if they were with normal children. It would seem that the backward child especially should be taken into our institutions because we could do so much for him.

President Johnstone: Are there any further remarks?

Judge Gould: A further fact occurred to me while listening to the discussion. I believe it is a general law that development depends upon exercise,—that exercise in other words is essential to proper growth or physical being. Now, any particular child who may receive, as Dr. Rogers says, only faint impressions at first, may he not by proper exercise later on, be able to retain these impressions if he is personally attended to? Then again, some children who are deemed abnormally dull may have in them possibilities in some particular line which the general public or the parents

may not yet have discovered, but which close scrutiny by a competent person in an institution of this kind may discover and develop and make of them useful and valuable citizens in some particular line, which the ordinary observer might not have suggested.

Dr. Rogers: Mr. Chairman, I think the statement of the Judge is true, but the limitations must always be remembered, if one is considering a typical feeble-minded child. That child's judgment is always limited. While he may learn to do things correctly, technically, can make just as good a brush, can drive a team of horses just as well,—if he doesn't lose his temper and thrash the team to death,—as anybody, yet there is always a lack of self-control and of those qualities which are necessary to make a success of life. The one characteristic of the feeble-minded child is the *lack* of that judgment,—the proper estimate of the relation of cause to effect. Consequently while he can do technical things if somebody will act as guardian for him, and will do them correctly, yet there are certain fixed limitations. Just as soon as our people get out into the world and are hired for service it is found that they cannot be trusted to do for themselves, or to plan their own work, or be left alone to carry out instructions if new combinations come up, or adapt themselves to new circumstances, and then employers do not want them when it is possible to secure other help. That is the universal experience.

Dr. Mogridge: Judge Gould's question as to whether we have in our institutions children who never ought to have been sent there, is one that is often asked by layman and physician. But when you think that we are not receiving twenty or thirty new cases every day, that we receive these children one by one—perhaps in the course of a month at Glenwood we receive half a dozen—you can see that there is but a slight possibility of such a thing occurring. Concerning the majority of the children there is no question about their mental capacity. They are either low or medium, or rather what is termed a low grade of imbecile—the great majority of them. Once in a while we get one of the better class and then the question of a closer analysis comes up and it is made. All of you gentlemen have the same experience. You are not receiving high grade imbeciles all the time, or moral imbeciles, And as I say the examination, the analysis, is made; it is made by the superintendent, is made by the assistant physicians, is made by the principal of the schools, is made by the teachers, and by the attendants, and so it goes down the line, and if the child is, or is not, a subject for the institution it doesn't take very long to find it out. And then again I find this: The parents are very loath to admit that their child is feeble-minded. One of the safe-guards, one of the very great safe-guards against receiving children into the institution that don't belong there is the solicitude of the parents and friends. They don't bring a child to the institution unless they are clearly of the opinion that he is feeble-minded, and it is hard to get them to admit that their child is feeble-minded. I think that is one of the safe-guards against admitting such a child as this border-line case. In other words, we are on the alert I believe at all times to analyze the

child's mental condition. We want to keep out the normal child, we don't want the normal child. We want the abnormal child; and when we get him we want to keep him. We want to educate the brighter ones and do all that is possible for their welfare and keep them out of mischief that comes from lack of an education, judgment and will power. We want to make the life of the feeble-minded child pleasant, teach him all we can, but we certainly want to keep him so long as he shall live so that we shall not have any more from that source.

President Johnston: We will have to continue this discussion tomorrow morning. Dr. Rogers informs me that he has an announcement to make regarding supper. I think there is to be four minutes between the announcement and supper. I will now announce the committees and ask them to report Saturday morning.

LIGHT THROUGH BROKEN WINDOWS

MARGARET BANCROFT.

EXPERIENCE in every sense of the word, is the only road to truth. Leonardo da Vinci calls experience "The Mother of Science." It is by the vast accumulation of individual experience that mankind grew out of primitive savagery to its state of modern culture.

The present object is to present some views that are the outgrowth of some twenty years of experimental work with mentally deficient children; especially some ideas relating to the "light" or hidden life behind human organisms. Othello exclaims, "Put out the light, then put out the light." I shall therefore take as the basis of my thought, that the psychic "light," life and personality are one, no matter what you may call it.

In the very lowest form of life, (*the amoeba*), the beginnings of all physiological processes are found; such as contractibility, irritability, assimilation, metabolism, respiration and reproduction. In the growth of the amoeba we find the first efforts, as it were, when life pushes its way into the sense world by means of a physical manifestation. The human organism, the highest of all, makes precisely the same efforts. In it the ego—the personality—or the individuality, endeavors to work its way into and become manifest in the world of sense by means of the brain and central nervous system, just as in the amoeba we find the manifestations of intelligence in the cell substance, which has no nervous system.

Therefore, I am with those who believe that which we commonly call "the mind", is the soul light working through and utilizing the bodily organs of sense. In a normal person, the brain and the central nervous system act as the windows of the individual personality.

As yet I have not been able to completely collate these elements of

experience into a scientific philosophy. Therefore, the orthodox scientists may think my views unfounded. Notwithstanding this possible criticism, I firmly believe that the time is near at hand when we shall be able to furnish substantial evidence which will prove not only the existence of a personality, but of an ego that lives and feels, even though its full expression may be obscured by an absence, or a disease of certain portions of the physical structure, and that this personality likely persists after all apparent physical conditions have disappeared.

The trend of thought in this direction will also become apparent by a careful study of many of our recent works on biology and psychology, among which may be mentioned the works of Wundt and of Romanes; "Primary Factors of Organic Evolution" by Cope; the English translation of Verworm's. "General Physiology"; "The Genetic Energy of Organisms" by Williams (this article may be found in "Science" May 27, 1898); Sandeman on the "Problems of Biology"; "From the Greeks to Darwin" by Osborne; "The Story of the Living Machine" by Conn; and the writings of Dr. Richard Hodgson, Dr. F. W. H. Meyers, Dr. Hyslop, Dr. Oliver Lodge and the official records of the Society of Psychical Research.

If you read carefully any of these works, or parts of all, you can get an idea of both sides of the question as to the existence of life with or without the physical attributes.

The broken many stained and pictorial windows through which the light is struggling under disadvantages to harmonize itself with the physical world at large are found in three classes of persons; the mentally deficient, the morally deficient, and the insane. In these, the light is there, but the images, as in a broken cathedral window, are more or less shattered and confused.

It is not easy to clearly define what is meant by mental deficiency. I have ventured one definition which seems at least to avoid some of the difficulties. Mental deficiency is the lack of some part, (greater or less) of the brain and central nervous system, or the incompetency of these parts to respond to the efforts of self-expression. When this lack is so pronounced that there is little or no acquaintance with the world of sense, we have the very lowest form of mental "lack", frequently accompanied by some great disfigurement of the body. Persons so afflicted are called monstrosities.

In the second grade, we have children mentally deficient from gross brain alteration and not capable of marked advancement by reason of absence or serious defect in the greater portion of the cerebral hemispheres. Here the pathological conditions are such as to be almost irremediable; and the net result of treatment may be merely the modification of some established habits.

In the third grade, are children who are capable of greater intellectual advancement than those of class two; where the destruction or defect is limited to certain functioning areas of the brain or of one hemisphere, such as the auditory, motor, or occipital centres. With these there is less obliteration of latent or actual mentality, and more can be accomplished by training.

In the fourth grade we have defectives from conditions extracerebral or reflex, or where there is delayed cerebral development either as a whole or in part, without the brain being actually the seat of gross lesion. *These* are frequently capable of marked intellectual advancement. In this grade, deficiencies may have been caused by epilepsy, prenatal malnutrition, inherited diseases or traumatism.

This is the classification I would suggest, because the usual methods of symtomatizing are abitrary and the terms employed undesirable, so that it seems impossible to classify these cases except on pathological grounds. The class basis must, however, always yield to the individual in care and treatment. (Illus. oral.)

Another grouping of these types is as follows: Hydrocephalic, microcephalic, paralytic, traumatic, sensorial, meningitic, myxedematous, amaurotic and mentally deficient "savants". Pardon these technical terms, but this classification is used in many of our institutions and asylums.

Hydrocephalic, microcephalic, paralytic, epileptic and traumatic are very readily recognized by their symptoms. Sensorial deficiency is a form due to the congenital, or infantile, loss of some of the senses, for instance, in the case of Helen Keller and Laura Bridgeman, sight and hearing. Meningitic can rarely be diagnosed until after death. Cretinism I described in an earlier paper. Amaurotic is rare.

The term mentally deficient "savants" is applied to certain children who exhibit special aptitudes of one kind or another that are out of proportion to their intellectual development in other directions, and often remarkable as compared with similar accomplishments or faculties in normal children. (See article in Appleton's "Popular Science Monthly", December, 1896).

This will give you an idea of the different kinds of our broken windows and the manner in which the complete normal mental picture is obscured. But how are mothers and teachers to determine when these windows are broken? If possible, start at the very earliest age, and notice what is apparent in the normal child, then use this as data of comparison.

In the first month of a normal child, it will discriminate sound, its perceptions will be active as to taste, smell, touch, sight and hearing. It should sleep sixteen hours out of the twenty-four and its reflexes should be active. A six months' old child should be able to raise itself to a sitting posture, crow with pleasure, look into the mirror and seem as if it were comparing the image with the original. An eleven months' old child should stand without support, stamp, begin to whisper consonants b, p, y, d, m, n, r, l, g, and k, and especially use the vowel a. At the ages of seventeen, eighteen and nineteen months, the child will commence to associate words with objects and movements. It blows a horn, combs and brushes hair, and makes other imitative movements. When two years of age, it marks with pencil on paper, pretends to use a newspaper, executes orders with surprising accuracy, beats time and tries to dance to music.

Now if you will compare the abnormal with the normal, you will very readily see where the deficiencies are. However slight they may be, the

first thing to do, is to set to work to remedy them. The ways to do this are many and the time too short for me to go into details in this paper since each child requires individual attention. If, however, I can be of any help, I shall be glad to answer questions, either in writing, or by interview; but inquirers should always remember that the full outline of the case will have to be given before a course of training can be decided upon.

In our own school, we have individual training in class work; each child practically has separate diet, individual physical culture and individual discipline. Yet all of these children are grouped in different classes in order to stimulate them by emulation and competition. This ideal course can only be carried out in a school where there are many teachers for a few children. However, in your own homes you could start something like it, if you have the time and patience to devote to it.

I come now to the morally deficient group. Personally, I have not yet been able to properly estimate the exact lack in the nervous system that causes moral deficiency, but I believe the time is near when we shall be able to diagnose correctly and determine the portions that are lacking or diseased and then we shall be able to apply the remedies much more intelligently than is possible today.

I have always held the theory, that if we could take a morally deficient child in its earliest age, and give it a special education up to the age of twenty-four, carrying it through even the higher grades of education, always with the one end in view to elimiate his particular failings, we should soon be able to do away with moral deficiency. We should train him especially to be painstakingly exact. Let me illustrate by a hypothetical case. A certain girl or boy is untruthful and unwilling to carry out any work given her or him. Put the child to work then to measure exactly three inches, square. Make a square exactly three inches, join the ends and persist in the exercise until it is done correctly.

The important thing is to be persistent. Never let up until the set task is performed and performed properly, even if you have to show the child how to do it a thousand times. The ultimate results are worth the labor. If this perseverance is carried out in all work, I think you will soon have the open sesame to the abolishment of moral deficiency.

When perhaps after years, you have gained complete control over your child's habits, give him a college and then a university training in the sciences, especially in zoology and botany, and those branches which require microscopic investigations.

This training accompanied by proper medical gymnastics is, I believe, the only true help for this class of children.

This may seem an expensive project to you. It is really work which our government might well undertake. Certainly the millions of dollars that are now spent upon prisons and reformatories could be better used in support of our universities.

I have been very much interested in the insane, and it has been my privilege in the last year to have the opportunity of observing some of this

class. I would define insanity not as the *lack* of certain portions of the brain, or as a weakness of its central nervous system, but the disease of these parts after the ego or personality has become normally in touch with the world of sense. When such disease has occurred, the ego or personality has been repressed and in its endeavor to reach out comes through wrong channels. Therefore, we have those "storms" which are known as acute mania.

These storms in a nervous person or one mildly insane remind me of a river that has overflowed its channels and is endeavoring to find a course without knowing just where to go. Just as we have to find a new channel for the river, so we must find a new outlet for the personalities of the insane.

In many instances, our neurologists by discovering the physical causes, have been able to do this. Even though we cannot find these, we may still be able to discover other neural parts duplicated, that have not been in use, by which this personality may secure its outlet without causing the storms, which are apt to occur when it is forced into an irritating path.

Even if the insane cannot always be cured under this treatment, I maintain that seventy-five per cent can be made tractable. No matter how beautiful our state asylums may be, work of this kind cannot be done in the mass. It must be done with small numbers and by trained neurologists aided by helpers with intelligent scientific insight, preferably women.

Can you imagine anything more pathetic, and commanding our truest and deepest sympathy, than a personality unable to express itself and yet capable of understanding the outside world? No matter how maimed the body, and how lacking in mental aptitude, perhaps there is a very beautiful personality striving to emerge into the world of sense, which with proper machinery for exit, might make the patient blossom into a man or a woman of letters and renown.

Like Tolstoi, in his address, on "Peace", I can very truly say that I should never finish this article if I were to attempt to add to it all that corroborates its essential idea—life and personality as one. Therefore I seek for greater wisdom rather than knowledge, each day feeling,

"Knowledge and wisdom, far from being one,
Have ofttimes no connection: knowledge dwells
In heads replete with thoughts of other men;
Wisdom in minds attentive to their own.
Knowledge, a rude, unprofitable mass,
The mere materials with which Wisdom builds,
Till smoothed, and squared and fitted to its place,
Does but encumber when it should enrich.
Knowledge *is proud* that he has *learned so much*;
Wisdom is humble that he *knows no more*".

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX DECEMBER, 1904 No. 2

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, PH. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Post Office at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

DR. BARR'S NEW BOOK

The JOURNAL takes pleasure in formally announcing the appearance of a new volume on Mental Defectives from the pen of Dr. Barr and the Blakistons's well known publishing house, the chapter on Classification of Mental Defectives, from which, forms the leading article in this number of the JOURNAL.

This is the first work on mental defectives to appear in America since the publication of Seguin's immortal "Idiocy", in 1866, thirty-eight years ago, and as Seguin's work was largely a translation of his "*Traitement Moral, Hygiene et Education des Idiots*," which originally appeared in Paris in 1846, Dr. Barr's is, in reality, the first American treatise on this subject.

The term Mental Defectives used as a title, and employed frequently throughout the work, emphasizes the growing tendency to its use in this country, as a term covering all degrees of idiocy and mental feebleness.

The author discusses: 1, Synonyms and Definitions; 2, History; 3, Classification; 4, Etiology; 5, Diagnosis, Prognosis and Death Periods; 6, Training and Treatment; 7, Craniectomy and Asexualization; 8, Cretinism and Myxœdema; 9, Microcephalous and Hydrocephalus; 10, Epilepsy; 11, Idiots Savants and Insanity; 12, Echolalia; 13, Adenoma Sebaceum.

Six chapters are devoted to illustrative cases, one to the case of Samuel Henderson, the feeble-minded boy murderer, and one to "Stories of the Children". Ten pages are devoted to the subject of Bibliography. The subjects discussed are treated quite fully and in a fresh and original manner.

In no other place in literature is there found so complete a history of the development of definite care and training of the mentally defective throughout the world, including the history of the principal movements for Epileptics.

Dr. Barr gives the various classifications of other authors and presents his own "Educational Classification" which involves a combination of the terms employed by both Seguin and Kerlin (see pages 29 to 38 inclusive of this issue).

In the study of Etiology, the author, recognizing the impossibility of "dogmatic assertion" at the present time, suggests "by a separation of life into periods" and collecting sufficient data, it may be possible to determine the period most susceptible to "disturbing influences". "A further study of predominating influence" in any one period should throw valuable light upon etiology. This method applied in part to the study of 5,430 cases from Darenth and the Royal Albert Asylum in England, and those prepared by the author from Elwyn shows that the predominating etiological influences act before birth. The second period in degree of susceptibility is that following birth. The fewest cases are chargeable to circumstances attending birth. After an extended discussion of the various etiological factors the author observes:

"The various data with which we have been occupied have been gathered from the record of no less than 15,745 cases, the results of years of study and research of men engaged in the work. In reviewing, comparing and summing up, a consensus becomes evident regarding the production by each or any of the causes cited of a malnutritive condition tending so to prevent, to arrest, or to retard development, physical, mental, or moral, as to result in idiocy or imbecility. By all, the hereditary causes, whether acting singly or in combination, are found to be most pronounced and these again are distinctly accentuated in the condition of mothers during gestation, and in the heredities of imbecility and of phthisis. Furthermore the influence of some congenital cause is frequently traceable in many of the accidental and developmental causes attributed. Heredity is herein proven law, as inexorable in the descending as it is beneficent in the ascending scale; heredity—whether it be direct from parent to child, collateral as from relatives, or reversional reappearing ever and anon through generations—which none may escape."

In the chapter devoted to Diagnosis and Prognosis, the author refers to the prevalent use of the term "cure" as applied to the condition of the feeble-

minded, and attributes it to a confusion in the minds of many people concerning this condition and that of the insane. He makes clear that only development and improvement are to be expected and these only in the higher grades. He expresses the situation in this terse and startling sentence:—"We cannot cure what is not disease, but defect, and that which the cradle rocks the spade will cover." Nor is the author pessimistic concerning intelligently directed training. The spirit of his book is quite the opposite.

The "Outline of Physiologic Education," and the discussion on it, are suggestive and helpful to the professional teacher and full of interest to the general reader. His exposition of the necessary aids to training, "Environment, Association, Amusement, and Discipline" is clear and inspiring. The advantages of institution training and guardianship are fully discussed, and the author well says:

"The disadvantages for the feeble-minded out in the world, or in the family, is that there is either too little or too much expected of them. They must be required to stand up, but they cannot stand entirely alone."

Should any one doubt the author's optimism he only need read the closing phrase from his Foreword to be undeceived: "My three 'boys' have materially contributed, in addition to the aid gladly and efficiently rendered in the preparation of the book; many of the photographs by Jake, the translations by Arthur, and the entire typewriting of the manuscript by Judson, all being an exposition of the main argument—the possibilities to be attained through training".

The chapter on surgical operations deals with Craniectomy and Asexualiation showing the uselessness of the former, and the advantage of the latter in certain cases, of which the author has long been an ardent advocate with much in favor of the advocacy. His contribution to this subject is interesting and authoritative.

The chapter on Echolalia and Adenoma Sebaceum is the result of extended study on the author's part and it forms a substantial contribution to the literature of this subject. Echolalia is defined as "transcortical motor aphasia."

In the chapter devoted to illustrative cases, the reader will look in vain for data relating to improvement and development under institution training—but will find a clear presentation of types, with personal characteristics and family conditions.

The cases of moral imbecility described, including the full account of Samuel Henderson and the author's discussions, are exceedingly valuable contributions to an important subject which has not received sufficient attention from the public, or the general medical profession.

We are glad that the author has added a chapter in "Stories of Children", for these stories, illustrative of the every day life of so many of our "children", afford a side light on their mental individualities that we believe has not before received so much deserved recognition.

The work is "illustrated by 53 full page plates containing 152 photographic reproductions of actual cases." The illustrations are excellent, but

their distribution through the volume without definite relation to the text and without even an index, is a serious fault. It is to be hoped that in the next edition this condition will be remedied.

Dr. Barr's book, as a whole, is the most complete and comprehensive publication on the subject and his conclusions are reliable and authoritative.

Dr. W. W. Ireland sends the following from Musselburgh, Scotland:

At a meeting of the Scottish Branches of the British Medical Association in the Edinburgh Dr. John Thomson Infirmary, on the 17th of February, Dr. John Thomson exhibited a sporadic cretin aged two and one-half years. Dr. Thomson had detected the condition in early infancy and had administered thyroid extract which could not be continued as it produced persistent diarrhœa. This induced the doctor to have it given by the rectum. Thyrocol was used and in much larger doses than by the mouth. Great improvement of the child's condition followed. In the other case the benefit derived from the medication was very marked. The child has had the thyroid extract continued since she was seven weeks old. Her intelligence is about normal and she fairly might be said to have been saved from idiocy by Dr. Thomson's skillful diagnosis and treatment.

NOTES

At the meeting of the New York Academy of Medicine of April 18, 1901, the topic for discussion was "Dull and Deficient Children."

Dr. W. B. Noyes read a paper in which was given a classification of these children according to their suggestibility: (1) Those who are more or less of an automatic type; (2) children who respond most readily to suggestions when their emotions are appealed to; (3) children who are bright and well-marked individually, and who are often not readily influenced by suggestion except by exciting in them a spirit of opposition; (4) rebellious and obstinate children and those who are degenerate or moral perverts; (5) those in whom suggestibility abnormally marked as those of hysterical temperament. In studying mentally defective children one would meet with the following important classes: (1) Those having defects of perception e. g., the deaf, dumb and blind; (2) those whose special senses are unimpaired, but who lack the power of attention; (3) those exhibiting defect or disorder of the will, and (4) those who are morally defective.

Dr. Pierce Bailey called attention to the fact that convulsions arise from

a great variety of reflex irritations and he was of the opinion that when convulsions occur with sufficient frequency the epileptic habit may become established and in this way may be explained cases of apparent idiopathic epilepsy in persons having a clean family history.

Dr. C. S. Bull said that defective vision was a very common form of apparent mental dullness.

Prof. L. Witmer believed that the teacher had better opportunities for detecting mental deficiency in children. Fully one-tenth of the teacher's time was spent in endeavoring to instruct mentally deficient children. He advises segregation of mentally defective children and the formation of special classes for the intellectual and morally defective with special trained teachers.

Supt. C. E. Meleney discussed the obligation of the city to provide special education for defective children. The greatest obstacle to this work he found is the unwillingness of parents to admit that their children are mentally deficient.

Dr. T. S. MacNicholl gave some results of an investigation with reference to the relation of heredity and mental deficiency of 10,000 children, 8.8 per. cent. showed more or less mental deficiency. He had traced 463 children in 150 families through 3 generations. Of these 17 were precocious in some one thing; 403 were generally deficient; 313 had drunken fathers and 51 drunken mothers; 265 had drunken grandparents and 246 had intemperate parents as well as grandparents. 2 per. cent. of these children showed less than average intelligence.

A study of 51 strictly temperate families with 231 children showed less than 3 per. cent of dull children.

BOOK REVIEW

MENTAL DEFECTIVES—Their History, Treatment and Training, by Martin W. Barr, M. D. P. Blakiston's Son & Co. (See editorial notice.)

GENERAL PARESIS—Practical and Clinical, by Robert Howland Chase, A. M., M. D. P. Blakiston's Son & Co.

This is a book for the general practitioner, as well as the specialist. It is well known that the Prodromal and first stage of this disease generally first comes to the observation of the family physician, and so much financial and social disturbance may be caused by its victim during this period of simple mental instability, that its early diagnosis is a matter of extreme importance.

This work will be found very complete. Its style is concise. Its state-

ments are clear. It gives as clear a history of this multiphased mental disorder as has ever been written. It is illustrated by four photographs of each stage, taken mainly from the enormous collection at the Norristown hospital.

The author's plan of dividing the disease into first, a Prodromal period; second, a stage of decided mental alienation; third, a stage of chronic mental disorder; and fourth, a stage of fatuity, accords well with the usual history of the disease and recommends itself by its simplicity. He believes the Prodromal period may be as long as eight or ten years. It may be justly questioned if a disease which runs its active course in from one to three years should manifest the first irrational or unusual mental symptoms so long before the actual onset, and one wonders if these may not be due to some inherent weakness not connected with the subsequent Paresis.

It is impracticable in the limited space of a review to consider each subject in this thoroughly written work. The reader will find the description of the Prodromal and first stages, which are the periods during which the patient comes under the physician's care, very completely written. The varieties and complications of General Paresis are also carefully and thoroughly considered, while the now comparatively well known degenerative changes in the nervous system are clearly depicted. As the course of the disease is almost invariably towards death when well established, prophylactic treatment must necessarily be the only one of permanent value, and Dr. Chase has covered this ground carefully and completely.

The book is amply supplied with illustrative cases, about two hundred in all, many of which might, perhaps, be omitted, as the descriptions are too brief to be of any clinical value and they merely add the weight of numbers to more complete histories which are ample for illustration. The actual value of the illustrations may be questioned. It would be difficult to definitely state that there is any characteristic change in facial expression until the period of dementia begins, and it is doubtful if much aid in this question could be obtained by inspection of the two lower pictures illustrating the Prodromal and second stage as shown in this book.

To those who know the author's ample opportunity for study, his careful and studious oversight of his cases, it is somewhat of a disappointment not to find a wider record of his own observations. We hope to see this in the next edition. We have read no work which affords so much information on this increasingly frequent disease, or which gives it more clearly and completely.

A. W. W.

THE TREATMENT OF TABETIC ATAXIA by Means of Systematic Exercise, by Dr. H. S. Frenkel, translated by Dr. Freyberger, M. D. P. Blackiston's Son & Co.

This is a readable and instructive work. The book is written in two parts. The first deals with the clinical features of the disease. The second, and larger part takes up, in detail, the treatment of this disease, or rather with its resulting infirmity, by the exercise method.

This book can be profitably studied, and its methods utilized, by those

G A Dorr

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX MARCH, 1905 No. 3

ORIGINAL ARTICLES

DR. GUSTAVUS ADOLPHUS DOREN*

Good grey man, who heard his Master's call,
And gave his years to even those the least of all;
Those whom the world would call "deficients, the thankless throng;"
In whom reason dwells upon a tottering throne.
To him they were Nature's spots of blame, appearing to protest 'gainst
Vice or Nature wronged; but ever in his eyes as creatures loved,
Their piteous faces moved with sympathetic force his heart, his love, his grief.
Five and forty years of service crowned,
Not with applaud of men, nor spoils of state, but earning this,
The gentle words of lowly Nazarene,
"When to the least of these ye ministered, ye did it unto me."†

To serve the state in the management of a large institution for nearly a half century, is an honor accorded to few men, especially in a state noted for political changes, like Ohio.

*NOTE: This sketch of Dr. Doren's life is drawn mainly and verbatim from data prepared in part for this publication, and in part for other purposes, by those who have been intimately associated with him, including Dr. Washington Gladden and Bishop Vincent; members of the family have furnished some material by special request and the editor has added comments as he has seen fit without any attempt to distinguish authors by separate quotations. A. C. R.

†Written for the Ohio State Journal, by "S. B.," at the time of Dr. Doren's death.

Dr. Doren began his connection with the Ohio Institution for Feeble-Minded Youth at Columbus, in 1859, as an assistant to Dr. Patterson, at that very early period of its development when there were less than forty (40) pupils under its care. He died on Thursday, March 23, 1905, having served continuously as superintendent from 1860 to the time of his death.

Dr. Doren was born at Athens, Tennessee, May 25, 1833. He descended from Scotch Covenanters stock, his mother being of pure Scotch blood, his father of French Huguenot descent. He was one of eleven children, all of whom were taught to read and write by their mother in their own home. Hatred of the condition bred by slavery is given as the principal motive for leaving the South, and as one of his distinguished biographers has said: There was little honor for free labor under the slave regime. The parents were intelligent people, full of the traditions and aspirations of light and liberty. The name of their most distinguished son attested their veneration for the great Swedish champion, and the name of another son, Leonidas Erasmus, bore witness to the range of their intellectual sympathies. They could not stay in a slave country.

They lived for a time at Xenia, then at Cedarville, at which latter place they were close friends of the family of Whitelaw Reed, of whom, for a short time, Gustavus Doren was a schoolmate.

Gustavus was twelve years old when the family went to Columbus. For awhile he attended the public schools, but the family needed his help and he insisted on leaving school and devoting himself to their needs. This, from his boyhood, has been the keynote of his character. He has always been working for others, helping others, carrying the burdens of others. "Not to be ministered unto, but to minister" has been the impulse and the habit of his life. It was no mere sentiment with him; he did not talk about it; he simply spent his life in doing it.

He found employment in various industries—part of the time as an employe of Mr. C. P. L. Butler in a bakery and confectionery business, which he eventually purchased and carried on upon his own account.

Later his attention was turned to the study of medicine. He entered the office of Dr. R. J. Patterson, of Columbus, as a student, and after attending the lectures for a year in Cincinnati, he went to Pittsfield, Mass., to the Berkshire Medical college, which was formerly connected with Williams college, where he was graduated in 1859.

Immediately on returning to Columbus he was employed as the assistant of Dr. Patterson who was then the superintendent of the Institution for Feeble-Minded Youth. The institution was at that time located in the building which is now the Home of the Friendless, on Main street, east of Parsons avenue. It was a very small affair, providing for not more than 30 or 40 children. Within a year Dr. Patterson moved from Columbus, and Dr. Doren was elected superintendent pro tem. It was not deemed judicious by the trustees to elect so young a man superintendent. At the next election, however, their misgivings on that score having been removed, he was given full control and held it until his death.

The history of the institution from that time represents Dr. Doren's life work. His was a comparatively new profession. Massachusetts, New York, Connecticut, and Pennsylvania only had established or officially patronized similar institutions, and thus Ohio was a western pioneer in the field. The wonderful success of this institution is not only a tribute to the ability of Dr. Doren as an executive but is evidence of keen foresight and an appreciation on his part of the possibilities of his chosen profession, less understood even today by the general public of all of our states than any other profession.

Dr. Doren carried on his work with an energy and enthusiasm born of faith in its justice and usefulness.

In 1868, when the institution was moved to its present site, its growth began in earnest, and within one year it was training and caring for three hundred. At the time of his death it consisted of a group of noble buildings, and at last a great custodial farm of 1,600 acres with its own fine buildings, and its own stock and farm produce for the healthy and happy employment of males, and for the supply of the table of the main institution having a population of 1300, the largest number in any similar institution in the world, with possibly one exception.

Those who knew Dr. Doren longest and most intimately were charmed by characteristic qualities that marked him as a man of very unusual individuality and force of character—a man who had naturally a very wide and varied field of interest, in a marked degree a many-sided man, with a broad mind and a warm heart that refused to be narrowly restricted. He took the keenest interest in the wide world about him in all phases of its life, and greatly enjoyed the society and companionship of his fellowmen. He loved to enter into their life, their work, their amusements and their recreations; and his quiet appreciation, ready sympathy and warm cordiality made him a rarely entertaining and companionable friend in his hours of relaxation; but during recent years, as the demands of his work grew increasingly insistent and exacting, he devoted himself more and more exclusively to it, finally withdrawing himself almost entirely from interests scarcely less dear to his heart. The extent to which he carried this devotion was perhaps his most distinctive characteristic to many with whom he was associated. He became wholly identified with his work so that it is almost impossible to separate the thought of the one from that of the other. It was his life; almost, one might say, his religion. No sacrifice was too great to be made for the welfare of the institution whether it be of time, or strength or personal interests. Time and again his own property was devoted, freely though unobtrusively, to the needs of the institution. When the school was moved to its present site, Dr. Doren foreseeing that much more land than the state secured would eventually be needed, borrowed money and bought a large adjoining tract which he sold years afterward to the state for exactly what he paid for it, losing all the profit from the greatly increased value of the land and even the interest on the money invested. He also bought up available land surrounding the grounds to prevent demoralizing influences

crowding in on the institution—a course which subsequent events have proved to be much to the advantage of the school. One of the features of the institution has been the herd of Shetland ponies which has provided so much enjoyment and healthful exercise to the children who drove and rode them daily. These ponies were the private property of Dr. Doren but were freely given for the use of the inmates though kept and fed at his own expense. He was constantly sacrificing his personal property, a trait which was further displayed in his lack of attention to his private affairs as the work and interests of the institution made greater demands on his time and energy, demands to which he never failed to respond. He constantly deprived himself of needed rest and recreation; he had so wrapped himself up in the very life of the institution that he gave up all to it without any thought that he was making a sacrifice. In these later years he deprived himself almost entirely of what was one of the keenest joys of his life—the days spent in some quiet, secluded spot, away from the fret and confusion of conventional life, where he could enjoy that communion with nature which was always so dear to him. This love of nature and its living things—the trees, the flowers and the birds—was very strong in him, and it brought, as it always does, a rich reward. He possessed in a marked degree the faculty of gaining rest and refreshment from even the momentary enjoyment of its spell; a walk or drive from one part of the grounds to another brought him real pleasure and recreation. He knew where the blue-birds were building and was the first to welcome the thrushes back. He protected the squirrels and birds, and could not endure any cruelty or wanton destruction or mutilation of animals or flowers or trees; and this affection was fully returned, for living things seemed to recognize in him a friend. Animals and children were wonderfully attracted to him, though he made no effort to draw their attention, and even if so busy with other interests that he did not know they were near until they begged for recognition the plea was never made in vain.

This tenderness was very noticeable in his treatment of the unfortunate ones under his care. No harshness nor severity toward them was permitted for an instant. Gentleness with persistent firmness characterised his attitude in disciplining them. The gravest offences of his delinquent children were leniently dealt with, his explanation being "They are not responsible." His helpers in the work were always cautioned to "make the children as happy as you can and teach them all you can." He himself could soothe a homesick child when the efforts of all others had failed. His insight and tenderness made him a wonderful nurse, foreseeing wants and relieving restlessness when the patient himself was not aware what it was that was lacking, and even soothing after anodynes had failed to relieve, merely by sitting quietly at the sufferer's side. He left nothing to chance; nothing escaped his sight. He had the intuition of a woman and the devotion of a saint. Many a restless little one has been lulled to sleep by him. He was never too tired after his long wearisome hours of work to go to the bedside of a sick child even though it was surrounded by those who were ministering to its needs. He

must see for himself that every thing possible was being done for its comfort. Even the poor distorted ones drew from him such looks of yearning love and pity that those who saw his face felt that they knew how our Lord must have regarded the suffering ones brought to Him.

The same interest and care for the children under his control went into all his work. No detail was too minute to receive his personal supervision. The actual working of every part of the great whole was thoroughly understood by him. He knew the quantity and quality of all material required in every line of work and whether it was being used to the best advantage. He could see at a glance any neglect or abuse and at need could show the employees in any line the best way of performing their own work; and he knew just how and when to prove his practical knowledge. This perfect familiarity with all phases of the widely diverse work of the institution came not only from a great natural aptitude and versatility, but from the careful study as well which he gave to all subjects connected with the various sides of the institution's life, mechanical and industrial as well as business and professional, familiarizing himself with the principles involved in each, by reading and study of course, but also by practical experience.

In all this the remarkable breadth and many-sidedness of the man appeared. His executive ability was very marked. An unusually hard worker himself, he had in a high degree that ability to call out the best efforts of others which is so essential to the successful operation of any public institution, and inspired many of those who worked under him with something of the same spirit of self-sacrifice which animated himself. The financial side of the institution's affairs had at all times the most careful attention on his part and called into play his excellent business ability. His watchfulness, shrewdness, judgment and resourcefulness saved the state many thousands of dollars every year, and enabled him to provide the inmates of the institution with many comforts that under a less economical management it would have been impossible to provide. His unimpeachable honesty and integrity became so well known that there was almost no attempt made by those who had dealings with him to defraud the state.

Those who met him in a business way could not but admire and respect him for his qualities as a man of affairs, but many of them felt the great charm of his personal character so dear to his close friends. His capacity for enjoyment was immense, his interests broad and diversified. He had an unusual talent for friendship and his engaging manners and hearty fellowship made him an ever welcome companion, though he never obtruded himself, waiting rather for his attention to be claimed. In all ways he was modest in the extreme, never courting, but rather shunning, publicity for himself or his work.

His wonderful tenderness has been alluded to. It manifested itself in countless ways. Often when he himself was harassed by perplexing cares and worn with physical and mental weariness, those who worked with him have been electrified by a sudden exhibition of kindly solicitude for their comfort or welfare, or of interest in their personal affairs that showed how deeply

and thoroughly his sympathy embraced all that concerned those with whom he was associated. Giving up everything himself for the good of the work he had so at heart, and all without a thought of sacrifice, he sought to secure the same service from those under him, but yet he was ever slow to censure their errors. Effectiveness, ability and willingness to do things, appealed to him strongly and where these were not wanting he was ready to put up with much that must have tried his patience sorely. Though he held his heads of departments to strict accountability he gave them room to use their own personality to the best advantage. He never interfered by petty restrictions nor allowed others to do so, and they felt that in every right thing they had his sympathy and support. He had a genius for discovering and making use of latent talent in faulty people making them at the same time conscious that he was aware of their failings and guarding against them. New helpers were treated by him with courtesy and made to feel that he expected the best of them. Suggestions and general directions were given, details were left to them to work out in their own way. Corrections were made from time to time, but he never dictated unnecessarily, and so had hearty co-operation where a narrower person would have met opposition.

Like all persons of strong personality, Dr. Doren had enemies. There are those who apparently cannot conceive of anyone devoting himself unselfishly to the service of the state and holding such a position as Dr. Doren occupied for so many years without taking advantage of the opportunities afforded to enrich himself. There are those who are always moved to jealousy by any good and great work done by others. Dr. Doren never stooped to answer the charges brought against him by such persons or by those who were incited by petty spite or fancied grievances. He knew that for fair-minded people the work he had done here was his best answer and that the institution which he had built up and to which he had given his life stood as the vindication of his character, as it will continue to stand a monument to his untiring zeal and devotion.

Only to those who understood and loved him was his real nature fully revealed—a man who "fearing neither praise nor blame" was so strong intellectually and morally, so big and noble and courageous always, that however fiercely the storm raged they were as sure of his steadfastness, nobility and courage as of the everlasting hills.

A CLASS IN NATURE STUDY

HELEN G. KNIGHT, FAYVILLE, MASS.

MY nature work has been with a mixed class of children some of whom could do excellent work with scissors, brush and needle, but wrote and drew but little. Two talked but little and I had but three who could do board work.

We started our studies by planting some peas, beans, corn, acorns, and horse-chestnuts in a window garden. That the germinating process might be plainly seen we put thin layers of sheet wadding on the top of jars of water, and sprinkled the seeds on the wadding. From seed catalogues they cut leaves, flowers and common vegetables. Some of these they colored. They learned to write their names, to spell them, to tell quickly pictures of flowers and vegetables, mounted on heavy cards. They tried to draw from nature, using leaves, sprays of pussy willows and easy flowers. Those who could not draw from the copies, laid down leaves, etc. and drew around them. I wrote ten names of either flowers or vegetables on the blackboard and gave a star to the one who could tell the most names. I held up pictures and gave a star to the one who told the most pictures correctly.

We had but one horse-chestnut that lived and developed into a tree; and that we planted on Arbor day.

To vary our work we read stories about plants and tried to re-tell them. I used many excellent nature stories, from "In The Child's World" by Miss Poulsson. " All the Year Round Books," and the "Cyr," and "Stickney," Readers. We pressed a few flowers but not very successfully. They sewed the "Arnold Sewing Cards," cards showing leaf forms, flowers, parts of flowers, etc. And we found many pretty songs to sing.

This year my older pupils will continue their studies in drawing and coloring, will try again making a collection of pressed flowers; and will read and learn a few facts from Grey's, "How Plants Grow." The younger children will keep on with the same work done in the past, trying to learn the names of a few common flowers, and continue their sewing, cutting, and coloring. I dare say there are those who may think that vegetables, being under cultivation, are not properly classified as "Nature Study."

I thought that children who could not understand pistil, stamens and corolla, could learn corn, peas, and beans, their colors and manner of growing. They could also learn leaves, buds, and roots. The little window gardens were a great help to them in learning how the "roots went down" and since then, Miss Poulsson's "In My Little Garden Bed" has had a newer and fuller meaning to my little class.

President Johnstone: Before proceeding further with the regular programme we will be glad to have a discussion of both of these papers. *I wish to say to the ladies and gentlemen of the Faribault institution who are here that we shall be very glad indeed, to have you take part in the discussion, and ask any questions or offer any suggestions that may occur to you.

Dr. Murdoch: I don't feel that I have anything to add to these excellent papers. They both deal with subjects of great importance in the work of training the feeble-minded. Both questions were admirably handled, and the subjects exhaustively treated. I wish to compliment the authors of the papers.

President Johnstone: In connection with this paper on nature study I am sure we would all be very glad to hear from Dr. Mogridge. I understand he is doing some gardening work, and we would like to hear from him in respect to it.

Dr. Mogridge: I would like to hear from the teachers and from those who come directly in contact with the children in teaching the subjects treated of in the papers. We do a little in the way of gardening, but I think the Faribault institution does something in that line, and I am sure we would like to have their experience along the lines of physical culture, manual training and gardening.

President Johnstone: I am sure that the teachers here have some very good ideas on this subject and we would be pleased to have some of them, to carry back with us. These are matters of training pertaining particularly to school rooms, the school department, and I think the bashfulness on the part of the ladies should be overcome for the sake of what we may all gain from it.

Dr. Rogers: I would suggest that the chairman tell us something of the work in New Jersey at the school over which he has charge. I know they are doing considerable nature study work there. He is also very modest in telling what they are doing.

President Johnstone: Nature study and farming are so mixed up at Vineland this year that it is hard to tell about it. We had some very nice gardens for three or four years and we did quite nice nature study work, but this year we had a lot of grading to do and our gardens were put under two or three feet of yellow clay. Some of our teachers remarked that they were very glad the association was not meeting at Vineland this year. Our original plan for the garden was to make something like one hundred and forty beds, three or four feet wide and thirty or forty feet long. The children then planted in these beds in rows—generally in rows, various small vegetables, such as onions, peas, beans, radishes and so on. To keep them from mixing we planted at the north end of a bed, watermelons and cantaloupes and at the south end of the bed, cucumbers and pumpkins, forgetting that there was a two foot path between the south end of one bed and the north end of the next one, so that season we raised quite a nice crop of cantaloupes which when cut open contained cantaloupe and cucumber seed side by side and tasted just that way. I offer that merely as a suggestion in case

*Discussion following the reading of "A Class in Nature Study" and "Physical Training as an Educational Factor" (See Pg 78, this issue) at the Faribault meeting, June 24, 1904.

you are gardening. I think we ought to hear from the teachers, they are the folks to tell us about these gardens. I hope we shall hear from you. You see I stood up and talked when I was called on.

Miss Dillingham: It seems as if our garden was a kind of an experiment. All I have learned this year is the things that I shouldn't do next year, so I was hoping that I might hear from the people that had had a garden. We found that our space was rather small and there were so many interesting things around it that the children didn't take as much interest in it as they otherwise would. The situation wasn't as desirable as it might have been. We didn't have enough space so that each child could have a bed. I wondered whether you ought to have the children pull up the weeds or whether you ought to have somebody else pull them for them. I find I have to work too hard if I keep it up myself, so I just wondered what the other people did.

Dr. Rogers: Perhaps they would like to know about your mistakes.

Miss Dillingham: We didn't have enough space—not a sufficient number of beds.

Miss McLean: I can testify that our garden was somewhat successful because we had several treats of vegetables which the children furnished for the school. They planted the seeds, watered them and took care of the beds, and I know the result has been beneficial to the children. Of course the garden was in a very cramped space, and as Miss Dillingham said, there were so many other interesting things. The new buildings going up were right next to the garden and the children liked to watch the workmen as well as to pull weeds out of the garden. They followed up the dressing of the stone, the carrying of the mortar, the mixing of the lime—everything of that kind has been very interesting to the children. Next year we hope to have the garden a little further away from the building and more space given to it.

Dr. Rogers: I can testify to the fact that so far as the garden is concerned the children appreciate the value of the products. Miss Dillingham came in some time ago with some very proud children bearing some radishes which they wished to present to the superintendent of the institution as the first products from their garden. I made the suggestion that it was not quite fair that the superintendent monopolize the first products, and that they should go to the children that raised them. Immediately the leader of the little band that had come in, said that he thought so too, and at once proceeded to take them away from me. (Laughter) We are going to discharge him next year.

Miss McLean: I had an experience with the first lettuce of the kindergarten band. They brought their first lettuce to the school office. Little Johnny got the lettuce and washed it,—that is he said he washed it, and brought it in on a plate to the office. I thanked him for it, but he said, "No, you eat it." I said I would, but he said "No, you eat it now," and I had to do it and haven't got over the effects of it yet.

President Johnstone: I think that Miss McLean should be complimented for eating it under the circumstances.

Dr Mogridge: I think we can safely say that there are certain lessons that the children have learned from the care of these gardens. They have learned something about seeds; they have learned so nething about methods of planting and how plants grow, and if the gardens were so full of weeds, they have also learned that weeds grow. They have also learned something as to the products of the garden, and as shown by the Doctor's testimony they have learned generosity,—that has been inculcated in the children. So we see that although the garden may have been small and although it didn't look just as nice as we would like to have a garden look, there have been beneficial results. The children are perhaps getting all that they need out of their crude garden. The object of a garden is to develop certain sensations, certain thoughts and ideas, and I believe you are doing it,—I believe we are all doing it. We can do it with a little window box. It isn't necessary to have a large plat of ground,—I think if you had more space you would have greater difficulty,—keep your garden space small. I just wanted to say that it struck me that lessons were being taught by the efforts you are making here, and lessons you want to teach. Now I am sure that some one else can say something on this subject.

Miss Dillingham: Does Dr. Mogridge give each child a separate plat?

Dr. Mogridge: We haven't much ground in the school garden this year. We have a little circular bed and that is divided into small plats for each child, and they plant and tend their own garden and take a great interest in it. As in your case it is crude, it isn't expected that it should be anything else. But it is theirs, and they have an interest in it, a proprietary right in it. The fruit of the ground brought forth from the planting of their seeds is theirs, and they bring it in as Miss McLean has said, and usually desire to present the first fruits of the ground to those that are associated with them. We haven't carried it out very extensively this year. Our garden is just one plat of ground,—circular piece that is divided so as to give each child a piece, that he regards as his own particular plat.

Miss Dillingham: About watering the beds, does the school do that or do the attendants?

Dr. Mogridge: It is done by the school entirely, the attendants have nothing to do with the beds.

Miss McLean: Who takes care of the beds during vacation?

Dr. Mogridge: About the time vacation comes along the garden has gotten to a point where it has finished fruiting. The corn of course, would still be growing, but that is laid by, so to speak.

Miss Blalock: I have at least six children out of eighteen that are just as enthusiastic over the garden as they can be. They have hoed the weeds and picked the big radishes and left the little ones, and when I told them that next year each one would have a garden of his own to take care of and plant just what seeds he wanted to they were delighted. They are so enthusiastic about it that they talk about it every time they go out there, and

want to know all sorts of things about it. I don't care what anyone else does, unless the Doctor says we can't, I am going ahead with my garden next year.

Miss McLean: The kindergarten class had an interesting experience with their school garden. They procured three boxes of earth in which they planted seeds. To one box they gave water, but no sunlight ; to another they gave sunlight but no water, and to the other they gave the ideal conditions of sunlight and water, and then they watched the developments in in those three boxes. The lesson that little Charlie Hanson learned from it was that a plant would grow if it didn't have sunlight, if it had water; but it would grow better if it had water, and sunlight. His personal lesson was that if he was to develop like a plant he must keep his hands and face clean, that he needed both sunlight and water.

President Johnstone: I think that is very interesting. It might perhaps be called scientiffc feeble-minded nature study.

Dr. Rogers: I think Miss Baker, of Northfield. has some flower gardens that her children are looking after.

Miss Baker: I think, Doctor, that our flower gardens in comparison with these others would be like the institution, very small, very crude. I remember the first thing of the kind we attempted. The children were wiser than we were. We went out together and decided we would have a vegetable garden and a flower garden. We all knew the names of the vegetables but that was about all. Everything went along very nicely but when it came time for the lettuce and onions and radishes we had them but we hann't a flower on the place. I was so humiliated that I retired and left it to the children, and now we have both. The children really get a great deal of pleasure out of their gardens. One of the patrons of the school once sent a beautiful box of plants to the school and I gave the plants to the different children. One little girl in her enthusiasm watered her plant until it was nearly drowned, and then when she realized her mistake consulted me a number of times every day to learn if her plant should have water. Finally she learned to regulate and use her own judgment as to conditions of watering. This plant in question met with an accident, something fell on it,—it was a marguerite,—something fell on it and bent it to one side. She doctorerd it up by putting a stone under it, and showed a good deal of judgment and got lots of pleasure in doing so.

President Johnstone: Dr. Dunlap, won't you tell us something about your gardens?

Dr. Dunlap: Our children have not tried vegetables, but they are very successful with flowers. One of our larger girls has full charge of our conservatory in the winter and she very seldom loses a plant. She is very slow, —it takes her all day to water them, but she is very fond of her plants.

President Johnstone: How about your gardens, Dr. Wilmarth?

Dr. Wilmarth: We send the children to a large garden, but we have no garden connected with the school, I am sorry to say. Our children attend

pretty well,—pretty freely to the strawberry patch, but we have not opened a garden in connection with the school.

Dr. Murdoch: We have been having a garden for a number of years and our experience has been somewhat similar to that of Dr. Mogridge, that there is considerable danger in having too much ground and making it a very serious task, particularly the weeding question, and taking care of the amount of ground we started with. Our gardens are much smaller the last year or two, and are divided into flower gardens and vegetable gardens, the flower gardens adjoining the vegetable gardens but separated from them by a path. Each class takes a square and a certain amount of the square is apportioned to each child, sometimes two or three work together and sometimes more. We also found that it was advisable not to allow in one group very many kinds of vegetables or flowers. In our first garden I think we had about thirty different kinds in each garden, and the garden pretty nearly took up the time of the school in order to keep it going, and we didn't get the benefit from it that we might have. We also get a great deal of value in having the children go to the truck man's cold frames and get tomato plants and sweet potato plants and things of that kind and transplanting them in their vegetable gardens. They also take small geranium plants or whatever they may need for their gardens providing only that they have watched their growth in the green houses or cold frames. Of course, the step into the garden to help with the regular work is a very easy one from the school classes. In regard to weeding we have taught a number of low grade boys to do the weeding by putting them in the blackberry patch first until they distinguished between the weeds and the plants, and then they were put into the rose bushes, and they find the weeds and leave the plants. Blackberries are pretty good things to let alone.

Miss McLean: I wonder if you wouldn't get better results from the garden if the attendants took care of it?

Mrs. Wiley: I know we get the best results from our attendants. We have one low grade girl that pulls up her plants every day to see if they are growing, though we finally got her interested in a pansy bed and the effect has been highly beneficial. Whenever she is cross or ugly she goes to the pansy bed

President Johnstone: I think that it is of substantial assistance to have the attendants do the work. We have also had a small orchard intended particularly for our girls of the larger classes,—girls who do not attend regular school classes. We take them for recreation into our small orchard where we have some trees and such things as gooseberries, cherries, blackberries, currants, and various small fruits which they take care of. They are to do the picking and keeping them clean.—this, of course, would be under the attendants' care. I should like to ask what you do here in Faribault during the two months' vacation in regard to the care of your gardens.

Miss McLean: We have never had anything except school gardens, that is kindergarten gardens and in the summer time the children bequeath

their beds to their friends to take care of with the understanding that those who take care of them may have the products of the gardens.

Dr. Dunlap: Our girls go out under an attendant and gather vegetables for the table on the farm. They enjoy it greatly, whether they are fond of gathering the vegetables or of the lunch that goes with the party, I can't say. One day the housekeeper sent the girls out to gather four hundred and fifty or five hundred ears of corn. A party of girls and Miss Miller went out to the farm and Miss Miller began gathering corn in a part of the field that she supposed the farmer had directed her. The girls remonstrated with her and insisted that she was wrong, but she insisted she was right and as a consequence they got field corn instead of sweet corn. One of the girls said, "If you had minded us when we told you the mistake it wouldn't have occurred. It was more feeble-minded than any of us girls."

PHYSICAL TRAINING AS AN EDUCATIONAL FACTOR

MRS. LILLIAN MURDOCK, GLENWOOD, IOWA

AMONG the many factors which aid in the development of the feeble-minded, two stand as chief, namely: Manual training, the value of which no one will dispute, and physical training.

Physical training aims primarily at the training of all the muscles of the body: it is fundamental—the basis of all motor work of the child. As such, it is a broader term than manual training and includes that branch of the work. The distinction between the two lies in the fact that physical training deals with the larger co-ordinations of the brain and muscles, while manual training deals with the finer co-ordinations which evolve from the larger. This co-ordination between the brain and the muscles is a physical co-ordination, but depends in a more or less degree upon the mental action of the child. In all muscular training we clearly recognize this intimate relation between the action of the mind (not on its physical side as shown in the activity of its physical organ, the brain, but on its mental or spiritual side) and the action of the body. In fact in all action of the muscles which is not instinctive, spasmodic or reflexive, or which is not habitual through practice, the precise direction of the activity is controlled by the will, that is, the mind directs it. Learning to do things is just this conscious direction by the mind of the motor activity—whether the act is walking (comprehended in physical training) or sewing (included in manual training.)

On its physical side, scientists tell us that the fundamental muscles are controlled by coarse nerve centers and on these centers as a foundation rest the finer and more complex centers which control the secondary muscles: upon them, too, rest the higher mental centers. Then failure in developing the fundamental muscles and corresponding brain centers would result in weakening the foundation upon which all future physical and mental life rests.

We all realize the benefits in health, vigor and strength, to be derived from the proper exercise of the body. But do we get the full significance of what it can do for the intellect? Do we realize that physical training is more than muscle training?

This close relation between the physical and the mental activity of the child is shown, as we have already pointed out, by the fact that every organ of the body is connected directly with the brain, the physical organ of the mind. That the brain regulates and controls every function, that it harmonizes the workings of every part and gives unity and solidarity to the body.

Not only are body and brain most intimately connected but each is being modified in greater or less degree from infancy to old age. The study given to the child by physiologists and psychologists has brought to light many facts not before known which have changed the current of educational thought in the last decade. The old idea that the child is a man in miniature is no longer prevalent but he is shown to be a constantly changing organism, not the same in power or point of view for any two years together. He passes through one phase to another, his interests in his little world changing with each succeeding phase, and his power to comprehend increasing as his experiences raise him to higher standpoints, from birth to maturity.

One discovery which has thrown light upon several educational problems, especially upon that of motor education, is the discovery of the functions of the brain and their localizations. It has shown that the human brain cannot be treated in education as a whole but that it is an organ whose functions are highly differentiated. It has demonstrated that there is a sensory area, a motor area, and another not so well defined which forms as Dr. Balliet says "the physical basis of the associative processes."

The motor functions of the brain are most accurately localized. This area is subdivided into distinct centers for the movements of the different parts of the head, arms, and legs. Even such small centers as those concerned in the movements of the thumb or in contracting the larynx are localized.

The bearing of this discovery on physical education is of great importance. It shows that the brain grows through use as do the other organs of the body and that it suffers through disuse as do other organs. The only way to exercise the brain is to exercise the parts which it controls, namely: The motor centers through the muscles, the sensory centers through the avenues of the senses, etc. Therefore the only possible way to exercise the motor centers is through voluntary muscular contraction. Some form of physical training is necessary in order that all of the motor centers of the brain receive the proper stimulus to fully develop them. Look at the healthy, well-nourished babe. Abundance of movement is seen in all parts of the body while awake, and every movement of the body corresponds to action in a nerve center of the brain and the child grows in strength, control, and intelligence. This is the natural method. But we in our efforts to educate the child repress the natural movements, restrain the impulse to

action, educate away from activity, contrary to the nature of the child. We are told that an infant would almost surely grow up an idiot should it be bandaged and reared in such a manner as to allow of no movement of the muscles and as a consequence no stimulus necessary for development reached the motor centers of the brain. We know of the post-mortem examinations which have been made on the bodies of two adult men who had each lost a leg in infancy and the motor centers for the lost leg in each case were found to be undeveloped. And so, too, with the brains of the deaf. The sensory portions in every case have shown a lack of development in the cortical areas of the lost senses.

And not only do the nerve centers need exercise but it is imperative that they receive it at the right time. All the different areas of the brain are more or less closely connected in order that the brain may act as a unit. Of special importance are the modifications of the associative fibres which increase in number as the child grows older and connects his knowlege by thought relations. Dr. Clouston shows that the various fibre parts of the brain—the connections between the various centers and areas, develop at different times, the more important first, the less important later on. He likens this to the creation of the electric telegraph system in the country where the larger towns were connected by wire first and then gradually the smaller towns were brought into the system.

In studying the physiological development of the body we find the same lack of uniformity, not all the organs of the body grow at an equal rate at the same time. Growth seems to focus now upon one organ and then upon another. Even growth throughout the year is periodic. Children grow more in height in spring and summer and in weight in late spring and fall while there is little change in either respect in the winter. Then the period of rapid growth and the difference in growth in regard to sex have been demonstrated.

It is known that the period when an organ can be most effectually developed and, if need be, modified so as to counteract the effect of unfortunate heredity or habit, is the period of its most rapid growth: also that the fundamental muscles of the trunk and limbs come into use under the control of the will far earlier than the finer muscles that move the extremities; as the child learns to use the large muscles of the legs in walking long before he can control the muscles of his fingers to guide a pencil or needle with accuracy, and all this because the motor centers of the leg, in the brain, are in advance in their development of the motor centers of the fingers.

The problem then of physical training is a more complex one than is generally recognized. It must have in mind not the body as an organism growing as a whole but it must have due regard to the periods of growth for the different organs. It must regard, too, the growth periods of the nerve centers. Sometimes these periods are short as is the case with some of the instinctive movements of the infant, and sometimes long as in those in which the movements of the hand are co-ordinated, from the first feeble grasp, up to its wonderful achievements in shaping or making. But whether

these periods are long or short the whole future of the brain center depends upon the use made of it during the growth period. The only way we can use the motor centers is through the organ to which it is connected. While the period lasts the organ should be exercised. If the growth period is allowed to slip past unimproved no future efforts will compensate for the loss thus sustained.

This increased knowledge of the child's physiological and mental development has taught us that motor and mental sides must be developed together. That mental development depends in a large measure, upon opportunity given for sensory impression and motor expression. The child sees a flower and he runs to pick it. He sees an orange and he grasps it and puts it to his mouth. Every sensation has a motor aspect. Halleck says "that a sensation which gave rise to no motor element was never experienced. The element may be small in connection with some sensations, but it exists." And yet we as teachers often make the mistake of repressing the spontaneous motions of the child instead of directing them. We restrain the physical impulses instead of using them to promote physical and intellectual improvement.

Our problem then, in physical training is to educate the entire brain of the child through the activity of the muscles—to leave no brain cells to drop out of existence because of disuse. Col. Parker has said that "we know that dullness, sluggishness, weak-mindedness are direct results of an imperfect body, we know that." Then plainly our duty in the education of the feeble-minded is to improve the body in every way in our power, that the mind may be made more active, that the thought may be quickened, the will be energized, and self-control developed.

No amount of training will increase the number of brain cells beyond what a child has at birth. But lack of proper exercise at the plastic stage of the child's life will allow the few cells with which he may be endowed to drop out of existence. Then no part of the brain that is susceptible of cultivation should be left unexercised for only by constant exercise of brain tissue can you develop and strengthen it.

Our schools are surely feeling the impress of this new thought in education. The idea of gymnastics as a source of entertainment or amusement is a thing of the past. No longer do we use the old time "drill" with clubs and dumb bells in which the child learns the movements and repeats them automatically day after day. We realize that an exercise has lost all educational value as soon as precision is attained without the intervention of the will. That habitual actions are most powerful inhibitors of movements which tend in a different direction from the old. The channels traveled by the nerves are worn deep: it is hard to get out of the ruts. The college professor who learned in his youth to say "rise the window" for "raise the window" often forgot when a man and hastily said, "I'll rise it for you" when seeing some one struggling with an obdurate window. Such is the power of habit.

In place of calisthenic exercises in which a pretty effect is the chief aim, systematic work in physical training should be given as a means of building

up brain as well as muscle. If the normal child endowed with every faculty needs systematic physical training, how much more do the unfortunate ones whose slouching gait, dull eyes, and awkward movements are a faithful index to the disordered, meager, and undeveloped brain. Many people fail to see the close relationship between an imperfect body and vicious habits. In certain reformatories the first work in reclaiming the criminals is through physical training. For instance, at the reformatory at Sing Sing, I am told, the first training of the criminals is to teach them to walk properly and soon the stooping shoulders, blear eyes and slouching gait of these men give place to erect carriage and bright eyes and the work of reform is begun.

The strongest argument for manual training is not skill of hand acquired but increased intellectual power gained as a direct result of such training. If training the hand can give such results may not correspondingly greater results be obtained through the intelligent and systematic training of the whole body in the plastic years. In the case of the feeble-minded, at least there should be no neglected brain areas and the motor areas should receive as careful and intelligent attention as do the sensory centers of the brain. We feel that our children need physical exercise as they need food; that every artery should be filled with fresh blood, every muscle should be invigorated by means of proper movements, every nerve and brain cell should be strengthened and developed by means of healthful physical exercise.

Through physical training and it alone is it possible for the child to gain absolute control of his muscular system. The body should be the willing servant of the mind and so it will be if the proper training is given it. Dr. Krohn says "that there is nothing so important, nothing so significant, nothing so vital in the whole scheme of education as the development of the proper self-control, self-direction, and co-ordination of muscular activity." And that "physical training accomplishes more than any other educational force, the desired ends in this direction."

The old idea of physical training was breadth of shoulders, the new idea is breadth of mind. President Elliot says "the brain pervades the whole body." Then in seeking the development of the body as a whole we are aiding in the development of the brain as a whole.

"Wherever you have a population generally weakly, stunted, scrofulous, you will find in them a corresponding type of brain which cannot be trusted to do good work".—*Canon Kingsley.*

"It is not a mind, not a body, that we have to educate; it is a man, of whom we are not to make two beings".—*Montaigne.*

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX MARCH, 1905 No. 3

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, PH. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Post Office at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

HONORS TO DR. W. W. IRELAND.

Our readers will be interested in the following account of a meeting of medical men from all parts of the country, at the Library of the Royal College of Physicians, Edinburgh, to do honor to the author of "Mental Affections of Children," "The Blot Upon the Brain," "Through the Ivory Gate," etc. The occasion was the fiftieth anniversary of his medical graduation. Dr. Playfair, President of the College, presided and the presentation was made by Dr. Clouston who said:

"On the occasion of the fiftieth anniversary of your medical graduation, and in token of our admiration of your half-century of strenuous work, we desire to offer you our hearty congratulations, and to ask your acceptance of the accompanying gift.

"You entered your profession at an epoch when modern Medicine was laying its foundations on a scientific basis. Your teachers in the University of Edinburgh were men of the highest gifts and, catching their spirit, you have yourself worked hard for the advancement of Medicine and the abatement of human suffering in many important ways. Severely wounded at the outset

of your career in gallantly doing your duty during the Indian Mutiny, and suffering from the effects of that wound ever since, you have not taken life easily or spared yourself the fatigue of special brain effort. In Literature, in Science, and in History you have made your mark on your time. You have opened up a new path in Biography by your application of Medico-Psychology and studies in heredity in the elucidation of the lives of men who have made History. Showing how well you hit the mark, one of those studies of an Emperor of Russia was excluded from circulation in that country. These studies were not only scientific, but were also vivid and interesting to all intelligent readers. "The Blot upon the Brain" and "Through the Ivory Gate" will, we feel assured, hand down your name to coming generations.

In that department of Medicine which you have made especially your own you have built up a world-wide reputation. The "Mental Affections of Children" is our standard work on developmental defects of the mind. Combined with your practical work in this department at Larbert, that book makes the profession of Medicine and humanity your debtor. Your original papers on mental and nervous disease and on many other departments of Medicine, scattered in many journals, are all of much interest and value. Your numerous translations and abstracts of important papers in foreign journals have been of great use to your readers, and showed that you were willing to undertake even the drudgery of Science on their behalf. Many foreign Scientific Societies have shown their appreciation of your work by conferring on you their honorary membership.

Your life has been one of steady effort. Your stores of knowledge, through your extensive reading, have always been willingly placed at the disposal of your professional brethren. To few of their profession could they go with such a certainty of help for valuable references.

Above all those merits, your personal character combining modesty and genial humor, earnestness and truthfulness, have won our respect and affection. We desire most cordially to express to you our wishes for a long and happy life of still further usefulness. We believe that you will always enjoy the happiness of the man who "keeps himself simple, good, sincere, grave, unaffected, a friend to justice, considerate and strenuous in duty."

The Journal extends hearty congratulations to Dr. Ireland whose American friends, both those who have had the pleasure of a personal acquaintance and those who have not had this pleasure, hold him in very high esteem.

THE TRAINING SCHOOL.

That which gives character to the American institutions for feeble-minded—and what is true of American institutions is equally true of those in foreign lands—is the training feature of which the organized school department is the highest exponent. Not infrequently the question is raised as to the advisability of expending money and energy in the training of children who never can be capable of maintaining independent citizenship. This question is not, however, raised as often as it formerly was, and the liberal financial support given to our State training schools and the hearty expressions of satisfaction on the part of the great majority of intelligent observers concerning the methods and policies pursued in these training schools, are ample evidences of the fact that they have a just and proper reason for existence.

It is useless to discuss the reasons for and against the plan of taking care of defective children and making their lives happy and wholesome as possible as compared with the idea of their extermination. Their existence is a sad fact. The promotion of their welfare and happiness on a plan consist-

ent with the best interests of society not only appeals to the enlightened conscience of this age, but any other scheme would not be tolerated. After all is said and done the golden rule is a very safe guide for directing the affairs of life. The intelligent normal minded parent into whose family a defective child is born, finds his affection as warm and his attachment as strong for the unfortunate child as they are for his normal brothers and sisters, and he will not willingly accept any plan for the life of that child, that does not secure his best welfare and greatest happiness. He yearns to realize a restoration to normal on the part of his child, and eagerly embraces every opportunity that promises improvement in his condition. What is true of the parent of the unfortunate child is equally true sympathetically on the part of his normally constituted neighbor. In this feeling lies the foundation of the support which the public gives to the training schools for defectives.

The fact that a truly feeble-minded child never can be made normal by any kind of training or medical treatment, as some erroneously have been led to believe, does not alter the general proposition, but it does involve a careful consideration of the methods of training and the direct purposes of such training. Whatever the child's limitations may be, so far as he is susceptible of being trained, character and capacity to think and do are the objects to be attained whether he is to be retained permanently in a colony of his kind or go out into the world and assume the responsibilities of life. Owing to the personal equation of the parent, the preparation for colony life can be made best under the direction of the unbiased teacher.

The feeble-minded child's training should certainly be as practical as possible and it is almost axiomatic that his best mental development is attained by the constant mutual training of the hand with the special senses. One thing, however, that is so often overlooked is that training must be adapted to the age and characteristics of childhood. Just as the school for normal children is the preparation for the later practical life whether it be that of a profession or trade or other occupation, so the feeble-minded child during his period of growth requires a preparation for the final practical occupation before he is ready for the latter. If the boy is to become a helper around the farm and garden, his kindergarten training with all the diverse occupations and games are fundamental preparations. The hand and eye well trained by kindergarten exercises are better prepared to pull weeds and pick peas. Exercises in sloyd training do not make a finished carpenter or cabinet maker, but taken in connection with the other properly arranged training in the school rooms, they lay a foundation for a good workman later whether it be in shop or in field. The best teamsters, plowboys and workers generally among the feeble-minded that I have ever seen have been those most thoroughly trained in the schools. As stated, the teacher must not lose sight of the practical side of the training, but above all things she must not waste her time in the mere verbal transfer of dry facts to the ears of the child. The "doing" method must always be employed instead of the "telling about it"

In procuring material for training purposes it is important to select that by the use of which results are produced; not necessarily the most expensive, very often the most inexpensive in the hands of an intelligent teacher is the most satisfactory. But the fact that some expensive material may be destroyed by the pupil while he is being trained is not the most important consideration. It is results that are desired and all material must be employed for this definite purpose.

Two other facts are often overlooked in considering the question of training the feeble-minded, namely: That all human beings who do not co-operate in the life immediately around them degenerate, and the work and influence of every employe in an institution for the feeble-minded should stimulate the inmates and pupils under their immediate care to a proper degree of physical and mental activity, according to the capacity of such pupil or inmate.

It is folly to attempt accomplishments beyond the capacity of the pupil; but it is exceedingly gratifying to see our so-called custodial children develope, by training, into lives of usefulness which are also productive of their greatest happiness.

—A. C. R.

We are informed that Dr. Arnold has a new book in preparation, "The Life of Sir Henry Vane". It is to be issued in October by Eveleigh Nash, London.

The JOURNAL has received a re-print in leaflet form entitled "Home Relief to the Mothers of Mentally Affected Children of School Age", by John Thompson, M. D., Physician to the Royal Hospital for Sick Children at Edinburgh. This free leaflet presents some excellent advice to mothers.

JOURNAL OF PSYCHO-ASTHENICS.

Vol. IX. JUNE, 1905. No. 4

ORIGINAL ARTICLES

IS ASEXUALIZATION EVER JUSTIFIABLE IN THE CASE OF IMBECILE CHILDREN.

READ AT VINELAND MEETING, 1905

S. D. RISLEY M. D., PHILADELPHIA.

AN adequate study of the question presented for your consideration introduces us at once to some of the most profound and intricate problems involving the social structure of our race. To meet these problems wisely will require the united and best endeavor of the physician and the jurist and the wisest exercise of a broad and scientific philanthropy.

In no direction possibly has greater advance been made during the past century on medico-sociologic lines than in our knowledge of the defective classses of the population; this knowledge, however, has served only to afford a more adequate comprehension of the extreme complexity of the problem of how we can best deal with these unfortunates. Careful study of the social evolution of the race has, on the one hand, taught us the hopeless condition of the habitual criminal, the mentally defective and pauper classes. In large measure discouragement has thus far been the result of our endeavor to reform the one or train to useful citizenship the other. The higher ethical considerations cause us to stand aghast at the suggestion that they be left, as indeed they were before the advent of the Christian era, to the unobstructed operation of the law of selection. This law, harsh, and utterly void of sympathy as at first sight it seems, was nevertheless the natural method of progress for the race; but under modern social conditions with its altruistic ideals, based upon the recognition of a universal brotherhood, the weak and unfortunate are protected against the operation of the law which ordained

their destruction. In the eye of the law of selection they were reprobate. We have sought for their physical redemption but have been taught the futility of our well-meant endeavors. We have fed and clothed the pauper, and sought to imbue him with the spirit of thrift and self-help, but like "the sow that was washed he has returned to wallow in the mire." Instead of hanging the thief, as was done in former times, he has been placed in a reformatory, taught useful trades and his mind stored with moral precepts; "but can the Ethiopian change his skin or the leopard his spots?" The criminal too often remains the criminal still. He, too, is reprobate. We have reared asylums and training schools for the feeble-minded, and have sought to protect and to train them into useful lives only to discover that they too are the victims of a physical and moral reprobation.

At the beginning of a new century we stand before the problems of degeneracy and criminology, in some measure discouraged, yet thoughtful. From the standpoint of ethics we must regard these unfortunates as our wards. From the view point of social evolution we must declare them unfit; we can discover no rational basis for their protection in the inalienable right of liberty of action and the choice of pursuit. They remain an ulcer on our social tissue. Christian ethics has reared for them almshouses, asylums and hospitals. The state has immured them in reformatories and prisons for the protection of the community against their frailties and their deeds. Science has grouped them in classes apart, as the irresponsible victims of heredity and disease, or of alienation by natural laws. What shall we do with them? What course can we take which shall neither wound our compassion nor thwart our sense of justice and equity, and at the same time permit us to follow wisely the teaching of science? To give freedom of action to these unfortunates is only to perpetuate the evils we recognize as inseparable from their existence, and to multiply sorrow; it would prove to be the opening wide of a Pandora's box to permit the escape and free riot of monstrous, indescribable things which a Hercules with a thousand lives could not vanquish in untold generations. It is not necessary in this presence, even did time permit, to discuss the plans which have been suggested and those which have been put in operation for the betterment of the idiot and the imbecile, the pauper and the criminal, or to point out the discouraging result of these well meant and scientifically conducted experiments. No hope except by custodial care has ever been inspired, even in the minds of the most sanguine, for the low-grade imbecile and idiot; but for the middle and high-grade defective hope was excited, by the frequent display of cunning ingenuity so often witnessed, that, by suitable training in well equipped schools, the ban of heredity, the blighting, congenital incubus, might in sufficient degree be lifted from his life to send him forth into the world to a limited but useful citizenship. But increasing experience has served to show that the improvement, even in the most promising examples of the result of training, is but short-lived, and that even under the continued stress of the school environment the ban of degeneration very soon once more asserts its sway and they settle back into the mire whence they had been digged. Any study

of the statistics which have been rapidly accumulating during recent years serves to show the malignant, immutable influence of heredity in the defective and criminal classes. To permit them to propagate is not only to perpetuate their kind to rapidly multiply the associated evils in our social structure. McKim, recognizing the evils to society growing out of the unfortunate lives of these defective classes, witnessing the very intimate relation between degeneracy, epilepsy, inebriacy, and crime, has not hesitated to advocate even the painless taking of the life of such by the state, expecting by this radical treatment to end at least the propagation of their kind. This is certainly a radical measure, a severe blow to our compassion but serves to suggest, at least one author's appreciation of the ghastly features of the social evil which our "softness," the ethical basis of our modern civilization has permitted to grow up in our midst. Not only are vast numbers of hereditary paupers, imbeciles, inebriates, and criminals being born annually in our midst to swell the number of these degenerates, but they are entering through the too widely open door of our immigration system.

While modern study has done much therefore, to instruct the physician and the student of sociology as to the essentially unimprovable character of these unfortunates, and the hopeless future which hangs darkly over their lives, the community at large, the average citizen is not sufficiently informed of the teachings of science regarding them and stands sadly in need of instruction as to the essential nature of the malady which characterizes the defective classes. The complexity of the problems involved is appalling. Allusion has thus far been made only to the obviously defective but, between these and the obviously normal individual exists a broad fringe, the fimbriated border of which extends downward into the dank mire of degeneracy, penetrating more deeply its mass with each succeeding generation, and constantly furnishing recruits to the submerged strata. How shall these serious considerations be planted in the public mind in such a manner as to secure adequate comprehension of their serious importance, for example, in assuming the important and serious relations and responsibilities of the marriage contract. It is obvious that the factors in the problem before us are numerous but principally two.

In the first place, viewed from the standpoint of the already submerged individual whether criminal or imbecile, society should assert its right to prevent the propagation of his kind. It should come to understand that the law of heredity is well nigh immutable in its operation; that the child of the feeble-minded parent is more firmly fixed under the law of degeneracy than were his parents; that the child of the feeble-minded parents or of the criminal and the inebriate begins his vicious life not only earlier but pursues it with a momentum not equaled by the parent. The community at large has yet to learn that the child who "comes into the world ginbegotten," as Gilbert Parker has written, "has the instinct for liquor in his brain, like the scent of the fox in the nostrils of the hound." A fact equally true of imbecile begotten offspring. We cannot hope "to gather grapes of thorns or figs of thistles." The downward momentum of the law of degeneration is upon

these unfortunate classes of our population. Observation seems to demonstrate that no admixture of pure blood is efficient in removing the stain of degeneracy.

It should be understood therefore, in the second place, that these classes are recruited from the fimbriated social border, composed of the children of the unrecognized high-grade imbecile and epileptic, of the silly half-witted consumer of nervines and stimulants; of the opium habitué and the drunkard, and from the offspring of the feeble and diseased parent. That therefore, even if McKim's drastic remedy should be adopted, or if asexualization should be legalized by the state for the disposal of the degenerates now under custodial care in asylums, reformatories and prisons, it is obvious that it would result in failure to free these institutions permanently so long as the bed left vacant by execution or at least by the physiological ending of the sexual life of those rendered innocuous by surgical means, is immediately occupied by a recruit from the social fringe already alluded o.

It is plain that the ultimate remedy must be the control of the sources of degeneracy. This control lies primarily in a broader education of the community regarding the hereditary transmission of family traits and peculiarities. It should be taught without hesitation that marriage contracted by individuals who are the victims of alcoholism, of the opium or cocaine habit, of epilepsy or of any form of mental alienation or disease; by individuals the tendency of whose lives is peculiar and erratic does not safeguard the social interests of the coming generation. That certain forms of inebriacy are, in a large percentage of the cases, but one manifestation of degeneracy and should be grouped with certain phases of epilepsy, with prostitution, pauperism, and crime has been abundantly proved. The hunger of the nervous system for nervines, stimulants, opiates, etc., manifested by large groups of persons moving to and fro in the midst of our social structure, is well known to be the result of some congenital blight which has fallen upon the vitality of the individual. Too frequently there is associated with these tendencies not only an attractive person but mental qualities closely allied to genius but wanting, on careful analysis, in that balance which gives repose and guides the individual calmly but steadily in the straight and narrow way of a virtuous and contented life. The very abnormalities of such characters furnish striking features which attract attention, and between the sexes, foster those associations, which result in marriage. It is obvious therefore, that not only should the state stand ready to authorize measures for preventing the propagation of degenerates recognized as such, but should also provide for wise regulation of the marriage contract. We hear much discussion of later years regarding uniform legislation in the United States for the restriction and regulation of divorces, but the enormities of the divorce courts daily brought to our attention by the public press would in some measure be prevented if marriage were entered upon under wiser state regulations, and with greater knowledge and circumspection upon the part of the contracting parties. Legislation upon the lines indicated has been regarded as against public policy since it would tend, it has been argued, to retard the

growth of the population and would foster illicit relations. Whether this is true or not the experience of one state legislature which has sought to restrict the marriage of the unfit has proved how extremely difficult is the task to which it has committed itself. The ridicule and opposition of a large section of the public press; the antagonistic views expressed by individuals, especially women, set forth in published interviews has served to demonstrate how difficult it will be in the present state of public understanding to secure legislation which will prevent unsuitable marriages. It is plain therefore that a wider knowledge of the conditions is necessary in order to create public sentiment in opposition to the union of the unfit, and will in the end be far more potent for good than restrictive legislations. This public education must come largely through the teaching of the physician.

As conditions are at present in the United States, two young persons who by chance are thrown together acquire a mutual fondness for each other. They are too young to be controlled by anything but the physiologic instincts which mutually attract them. The serious and complex problems which we are discussing, are to them a sealed book. They are ignorant and in their ignorance go blindly forward until their feet are entangled for weal or woe in the meshes of the labyrinthine net which has spread in their unguarded pathway. They need advice, but who shall advise? The parents are less ignorant than the children only in so far as they have experienced the serious responsibilities which are sure to follow marriage; the teaching of science regarding the marriage relation is to them also a sealed book. If parents can be taught that the marriage of the unfit is not to secure the happiness of their children but to entail untold misery instead; if a young man can be made to understand that the silly, neurasthenic, untruthful girl will retain these qualities to the end and will bear to him a progeny of like-minded children who will bring "his gray hairs in sorrow to the grave;" if the young woman contemplating marriage can be made to see that her reckless, lawless, drinking, thriftless lover will not reform his ways under her gentle influence because these habits are but the outward expression of an inborn vice, penetrating and ramifying the warp and woof of his moral, physical and mental being; then, and only then, can we hope to stem the flood of recruits annually plunging downward to join the ranks of the submerged unfortunates who are failures in life at least or fill our eleemosynary institutions, reformatories, and prisons.

Having said so much regarding the origin and hopeless nature of degeneracy it becomes us to inquire as to our obvious duty to the imbecile placed in our custody. Broadly stated the community and the state require at our hands two things. First, that the community shall be protected from the harmful influence of these unfortunates. To this end they have been recognized as a distinct class of individuals and as such are set apart. Second, that once set apart and placed under the training or custodial supervision of professional men, especially trained for this service to the state, their physical condition should be ameliorated and their lives rendered more peaceful and happy by every device known to science and shown by experience to be efficient, safe and helpful. This ideal of duty is fully in accord with the ethical and altruistic ideals of our age.

I need not in this presence speak at length or in detail of the pathologic state of a considerable percentage of imbecile children; of their incorrigibility and their nervous disorders; of the absence of self-control; of the fatal dominance of their sexual lives; not only as out manifestations of the feebleness of their mental state, but also as a powerful reactionary influence in originating and establishing more firmly their nervous derangements and sinking them more and more deeply in the quagmire of their degenerate lives. Every one at all familiar with them will know of these things.

As physicians, it does not fall within our province to deal, except in an advisory way or as educators of the community, with legislation designed to safeguard the marriage contract, but it is our plain duty to accept the teachings of science in our treatment and management of the imbecile children under care in asylums and training schools. The baneful influence of the abnormal sexual dominance which characterizes the lives of these persons manifests itself in aggravating the nervous disorders already existing. Self-abuse, so prevalent among the feeble-minded, has long been held to be an important etiologic factor in epilepsy and deranged mental states and other nervous disorders of ill-defined types. To remove from the imbecile this vicious tendency would in many cases render him or her more docile and amenable to efficient training. Their general health would improve and their lives, in some measure, be lifted from the slough of degradation. Where this has been done the incorrigible individual soon becomes an industrious member of the feeble-minded community of which he forms a part. While he may never be equal to the tasks and responsibilities of citizenship, he will be healthier, happier and at the same time cease to be a menace to succeeding generations.

So long as the imbecile is confined within the precincts of our institutions reared for his protection and control, he is not a serious menace to the community, but it is well known that the parents of these wards are prone to remove them from custody for the purpose of reaping the benefit accruing to the family from their labor. This is frequently done as soon as improvement in their condition is manifested as the result of their training.

They are often by this means turned loose in their respective communities and soon manifest their vicious tendencies. Asexualization would at least render them innocuous. Under the aseptic precautious of modern surgery the necessary surgical procedure is practically free from danger and in the male does not require an anesthetic, since all that is required is to cut the *vas defrens*, and cause no deformitory. Under suitable legal restrictions its application would not be abused. Unfortunately a wide-spread prejudice exists against the legalization of the procedure as was recently exhibited in Pennsylvania when the governor vetoed a bill which after a second attempt had passed both the house and senate. The message which accompanied the veto afforded a striking example of the strange psychologic tyranny of prejudice even over a mind trained at the bar and on the bench; but lacking in that mental calm and unerring judicial scrutiny probably never acquired except in the laboratory, where the human mind is drilled to accept only what is demonstrably and inevitably true by the unerring fiat of natural law.

Prejudice, prae-judicium, is a product of the sub-conscious mind, the fruitage of preconceived notions which, without the control afforded by induction from observed facts, reasons deductively and reaches conclusions based upon premises quite as liable to be erroneous as true.

It is not the contention of this paper that asexualization is justifiable in all imbecile children, but that as a therapeutic measure in selected cases it is to be commended.

Many intelligent parents give their consent without hesitation and in one instance the mother of an imbecile boy voluntarily made the request that it should be done for the reason that she had discovered that the boy's periodical visits home from the Training School were a menace to the household. But what shall be done in the case of the child descended from feeble-minded parents who are therefore incompetent to decide?

SYSTEMATIC PHYSICAL TRAINING FOR THE MENTALLY DEFICIENT.

MISS A. GERTRUDE JACOB, ORANGE, N. J.

In a recent gymnastic periodical I read the following:—

"IT is asserted now that 'there is no brain stimulus except that which comes through muscle'. It is certain that when the muscles cannot for any reason act from early youth, the corresponding brain area does not develop. Each nerve cell is now supposed to have a special function; to do only its own work, and respond only to the stimulus originating in the muscle with which its nerve fiber is connected. Every action of the nervous system without exception expends itself in its turn in muscular action.

The coarser lower nerve cells are associated with the corresponding muscular movements—like walking—and develop earliest. Even a congenital idiot or imbecile can usually walk. The cells associated with motions requiring precision of movement, rapid muscular contraction, accuracy in employing separate muscles or groups of muscles, develop later, and in exact proportions to the demand for them. If this demand is not made until the organism is too mature, and the developmental period has passed, the result, so far as the brain centers are concerned, is less complete, though the general bodily effect may be satisfactory."

If this be true, I need offer no further comment on the necessity of physical training for backward children. My purpose is to put before you some facts which have come under my personal observation rather than enter into a discussion of the subject itself. I want to give you first a brief outline of our general work and follow it with some special cases of interest. Every child on entering the Seguin School has his physical measures taken

and carefully recorded. When necessary an examination is made by the attending physician, an orthopedic specialist, or both. If deformity exist that can be helped by gymnastic work he is given from fifteen to forty minutes a day for medical gymnastics, and a prescription based upon the doctor's advice and his needs as shown by the deficiencies in his measures is made out. As these measures are taken again at the middle and end of the school year, comparison can be made and the work changed when not showing satisfactory results. One half of our children now in school are having special work either for spinal curvature, flat foot, round shoulders, undeveloped chests, constipation, or lack of co-ordination. The children also have two periods a day for educational gymnastics. In the true sense of education, a leading out, an unfolding, we aim to teach them how to use their bodies and turn automatic movements into useful ones. A normal child has to learn to use his muscles—the power is there, he must learn to conserve that power and do things in a way that will require the least expenditure of energy. We all had to learn to sit, stand and walk and we must always bear in mind, that backward children are younger than their years. In other words, do not treat them as first primary before they have passed the kindergarten grade. Just as normal children must be taught to assume control of their bodies in a conscious way our children must learn the fundamentals be they ever so old in years. Dr. Seguin says:

"Of all the incapacities of idiocy none are so striking and none so detrimental as those which effect motion and locomotion, their direct effect being to prevent the development of force, their secondary result to prevent the reaching of any instrument of knowledge". If, then, motion and locomotion hold an important place in the training of a backward child, it becomes our duty to see that the first steps are learned correctly, and the foundation of proper habits of sitting, standing, walking and I may add, breathing form the basis of our educational work. Passing over the children who are too mentally young for even the kindergarten, we must give the erect position and make a child take it properly. He must know how he feels, when assuming it, he must work before a mirror and see how he looks and if possible pride must be awakened and volition aroused if lasting results are to be obtained. But the responsibility of this does not rest entirely with the gymnasium. In the class rooms, dining-room, halls and parlor—in school and out the work goes on. A rivalry as to who shall be the straightest is fostered and a silver medal to be worn for a stated period is given to the most deserving and is liable to be forfeited for a relapse. We all have some purpose or end for which we work. And one cannot impress upon a backward child that he must do something for the ultimate benefit. He must have some kind of a reward be it only praise.

In the matter of breathing we find many with scarcely an idea of how to fill the lungs or expel air properly. In one case I worked three months before I could get the boy, ten years of age, to blow a whistle. Yet, now our children delight in blowing up the spirometer to see how high they can make it go, and our chart answers for the results obtained. We feel that the increase

AVERAGES OF FOURTEEN CHILDREN

(Accompanying paper of Miss Jacob, page 98, JOURNAL OF PSYCHO-ASTHENICS, Vol. IX.)

Date	Sept. '03		Feb. '04		Difference		Sept. '04		Feb. '05		Difference		Sept. '03		Feb. '05		Difference	
Age	13—11		14—4		5 months		14—11		15—4		5 months		13-11		15-4		17 months	
Weight	81 7-8		84 1-8		2 2 8		87 2-7		87		—2-7		81 7-8		87		5 7-8	
Height	54 7-8		55 4-8		5-8		56 1-8		56 5-8		4-8		54 7-8		56 5-8		1 6-8	
" Sitting	29 3-8		29 5-8		2-8		29 7-8		30 1-8		2-8		29 3-8		30 1-8		6-8	
Neck Girth	277		282		5		286		292		6		277		292		15	
Chest Repose Girth	689		702		13		710		620		10		689		720		31	
" Full "	711		735		24		731		750		19		711		750		39	
" Empty "	672		673		1		674		675		1		672		675		3	
9th Rib "	612		620		8		625		620		—5		612		620		8	
" " Full "	626		651		25		648		654		6		626		654		28	
Waist "	586		600		14		596		602		6		586		602		16	
Hips "	760		774		14		791		798		7		760		798		38	
Thigh "	445	444	458	457	13	13	456	455	456	455	0	0	445	444	456	455	11	11
Knee "	302	303	309	309	7	6	312	313	309	309	—3	—4	302	303	309	309	7	6
Calf "	276	276	283	283	7	7	285	285	281	281	—4	—4	276	276	281	281	5	5
Ankle "	172	171	170	169	—2	—2	175	175	172	172	—3	—3	172	171	172	172	0	1
Instep "	193	192	192	191	—1	—1	197	197	194	194	—3	—3	193	192	194	194	1	2

Upper Arm "	196	195	201	199	5	4	200	198	202	201	2	3	196	195	202	201	6	6
" " Flex Girth	212	210	221	218	9	8	220	216	224	222	4	6	212	210	224	222	12	12
Forearm	192	191	198	197	6	6	195	194	197	196	2	2	192	191	197	196	5	5
Wrist	137	136	139	138	2	2	135	135	136	136	1	1	137	136	136	136	—1	0
Hand "	151	150	154	152	3	2	157	156	159	158	2	2	151	150	159	158	8	8
Hand Strength	25	22	27	25	2	3	29	24	30	26	1	2	25	22	30	26	5	4
Leg Length	725	725	735	735	10	10	743	743	754	754	11	11	725	725	754	754	29	29
Lungs Cap	81		89		8		91		100		9		81		100		19	
Neck Breadth	82		85		3		84		86		2		82		86		4	
Shoulder "	297		303		6		306		312		6		297		312		15	
Chest "	204		211		7		214		218		4		204		218		14	
Waist "	190		200		10		196		198		2		190		198		8	
Hips "	268		275		7		278		278		0		268		278		10	
Chest Depth	151		153		2		160		162		2		151		162		11	
Abdomen "	150		154		4		157		157		0		150		157		7	
Head Circumference	514						519				5							
Tranverse ear to ear tape	288						293				5							
" Calipers	120						122				2							
Longitudinal tape	307						312				5							
" Caliper	176						177				1							

in chest girth, and the capacity of the lungs is partly due to the importance we have accorded correct habits of breathing. Dr. Seguin's idea that everything possible should be done in the open air if not carried out in the letter, is in spirit, for day and night, winter and summer windows enough are kept open to ensure proper ventilation. Before I pass on to another phase of the work let me draw your attention to the chart before you. It represents an average of fourteen children for a period of five months two successive years and I chose only fourteen because having taken those records myself I can vouch for their accuracy. (See chart.)

I also want to remind you that the chart represents an average, and the measures of this year are materially reduced because so many of the older girls have worked off superfluous flesh. One girl has lost as much as seventeen pounds but the important measures show a gain in spite of this. I chose the first five months of the school year because our best work is done then. The children fresh from their summer vacation are in better shape than after hot weather begins its enervating effect and they are tired. To prove this glance at the lung capacity. The average gain for the first five months is eight cubic inches; for the second year it is nine cubic inches, while for the seventeen months it is but nineteen cubic inches—making a gain of only two cubic inches from February to September 1904. I want to draw your attention to the chest measures. While the gain in chest expansion has been marked, in spite of actual growth the girth of chest empty remains practically the same, showing that the expansion means truly ability to breathe better. The gain for the first months of the two years you see at a glance and also the gain for the whole period. Now I ask you to follow the difference between chest empty and full:

672 and 711 makes a difference of 39 m-m
673 " 735 " " of 62 m-m
Total gain 23 m-m (almost an inch).
674 and 731 makes a difference of 57 m-m
675 " 750 " " of 75 m-m
Total gain 18 m-m

The difference between chest empty the first year and full the second, 672 and 750, is 78 m-m or about three inches, making a total gain of 39 m-m in chest expansion or about 1½ inches in seventeen months.

Now follow the ninth rib and let me ask you to remember that a gain here means that the lower portions of the lungs are being filled more completely.

612 and 626 gives 14 m-m difference
620 " 651 " 31 m-m
Total gain 17 m-m
625 " 648 " 23 m-m showing summer loss.
620 " 654 " 34 m-m
Total gain 11 m-m.

Compare first with last.

612 and 654 with a difference of 42 m-m making a total gain of 28 m-m, or

a little over an inch in ninth rib expansion in seventeen months. The total gain in the breadth of the chest was 14 m-m and in the depth 11 m-m for the seventeen months, and here as you may note there was no loss during the off months. Now let us return to the practical side. Three times a day the older children assemble for class work. Ten minutes is given after the opening exercises for club swinging or games, twenty minutes just before dinner for marching and light gymnastics and twenty minutes in the afternoon for heavier work. The discipline of military marching has had an excellent effect and to listen to the music, keep in time, be ready for commands and obey at once requires more attention than perhaps most of us realize. Except in club swinging the same order of exercises is seldom used, the commands in marching are never given in the same succession and if a child goes wrong he puts the others out. Therefore the class exerts a certain amount of discipline over itself, there is no danger of the children becoming automatons and pride is awakened in a wholesome way because praise or blame is for the class rather than the individual. The basket ball field offers a further training in the subservience of self. The children play by no recognized rules, but they do have sides and attempt the game. One girl who is painfully bashful when working alone or in class, will play basket ball regardless of spectators with surprising freedom. Another who used to fly into a paroxysm of anger when she missed the ball is learning self-control; the slow are developing quickness, the timid courage, and qualities are brought out that could be obtained in no other way. The children are learning that when the ball goes into the basket, while the individual thrower wins praise the ones who helped send the ball to her also have a share and her glory is the glory of her side.

Our younger children exercise in a different room, at the same time as the older. They march and take light gymnastics to music and have a preliminary training for the more advanced class. When necessary each child has a teacher to assist him so that he gets passive work until he can exercise for himself. In the afternoon class of the larger children, all girls, heavier work is given and the vim with which they now exercise would compare favorably with the normal. Three years ago our girls would not work vigorously. They were afraid to jump, use the rings or try the rope. Now they hail with delight the extra period a week for jumping and vie with each other in trying to go the highest. And right here I may say that the three feet six inches which one girl cleared in a running high jump recently is worthy of note. Several can climb to the ceiling on the oblique rope, turn somersaults, take other ring exercises and use the ladder and mat in a way that often surprises strangers.

They could not work so hard were not all details looked after. Gymnastic shoes the natural shape of and large enough for the feet, waists that allow of exercise, no round garters and care to prevent ill effects by temporarily debarring those indisposed in any way. The results since we formed our heavy work class have been most encouraging. The fleshy have reduced their flesh, the thin have added to their weight and constipation,

which I suppose is a trouble found in every school in the land, is becoming a thing of the past with us. A gain in health means a gain in ability to work along all lines and when a child is doing well in the gymnasium on general principles he is doing well elsewhere. There are times, too, when a child will exercise when all else fails. Strap him in the abdominal chair and hold his hands so that flexion and extension of the leg are the only movements possible and he will push out his feet when he will do nothing else. Hold him on to the rings and the fun of swinging in mid-air will generally arouse some spark of the play of childhood. How well I remember H—— when he first came to me for work. Ten years of age he manifested no interest in anything but with dragging feet or hopping like a frog he would get around the room clapping his hands and shouting "good-night." Stubborn to the last degree no force could compel him to do what he did not want, for down he would go on the floor in a heap with a cry that resembled a fog horn and there he would stay. One day I got him to the rings and not long after when I went upstairs to get H—— for his lesson I was surprised to hear him drawl out, "Swing on the rings". It was an entering wedge and there was no more trouble in persuading him that the gymnasium was attractive. To this day H— wants the rings but now he swings by himself and to be allowed to put his feet in and swing sitting is a reward for good work. From a timid, shrinking boy he will dare anything so long as he can hold on. He uses the pulley weights, finger and ankle machines and abdominal chair, can go up and down stairs and get in and out of the bath-tub by himself, punches the bag with right and left hand alternately, takes exercises by counts and will do things alone when not under supervision. The other day I was trying to teach H— to run faster but he persisted in leaning back against me. To counteract it I made him bend forward and the next day to my surprise, while busy with another child, I saw him bent like an old man running around by himself. The gain he has made is marvelous. A cretin, taking thyroid extract, he has grown eight inches in the three years I have known him and his school work has been steadily improving.

M— was another interesting case. With left hand practically useless from paralysis, deformed feet—one almost a club foot—with hydrocephalus and torticollis, nine and one-half years of age, four feet five inches high and weighing ninety-five pounds, she presented a problem. Myxodœma, the doctor said, and ordered thyroid extract but we noticed that M— gained rapidly in spite of it during vacations, and we prescribed plenty of exercise as well. You may imagine a child of those defects and that weight doing physical work when almost too timid to walk alone. However, lying down, sitting or standing she exercised. She was forced to use her weak hand, she was strapped in the abdominal chair where she could push out her feet, she was held up and made to walk the balance board and with my arm around her she learned to run. One experiment after another was tried but at different times for one hour a day. M— worked hard and by June her weight was reduced to eighty-seven pounds (lost eight pounds.) The second year she returned in September weighing one hundred five

pounds, a gain of eighteen pounds during the summer and while timidity had increased she could more readily overcome it.

The same line of work was followed, gradually adding harder things and when June came M— could get up from the ground without assistance, could run alone, go up and down stairs by herself, climb a few rings on the ladder, was in the advanced gymnastic class, had lost fifteen pounds in flesh and in two years had grown four and four-fifths inches in height and gained six pounds in the strength of her weak hand. Her mentality was above the average and her parents decided to try home training. When I heard from M— in March she was five feet and three-fourths inch high and dressed in street costume weighed one hundred thirty-six pounds and had gained nothing more in the strength of her weak hand. Why does not some one open a school for training of parents?

One of my most interesting studies was G— At four years and two months they discovered congenital dislocation of the hip and it was set by the bloodless operation. Until that time he objected to standing on his feet. Two years later when I first saw him he stood very unsteadily, could walk only with support and then with a wide base and an awkward shuffling gait. His lower limbs were undeveloped, his feet weak and flat while the rest of his body was strong and muscular. At the end of two years he could kick the foot ball, pick it up and balance himself while carrying it, and had decreased the width of the base to almost normal proportions and would go around by himself so fast that it practically amounted to running. He would use the abdominal chair and ankle machines, stand up while he pulled the chest weights, delighted to swing on the rings, when held would walk the balance board with help and would obey several simple commands. At first he was so inattentive that I thought him deaf. No noise seemed to have the slightest effect upon him. He persistently made a disagreeable grunting sound and attempted to say only two or three words. Full of mischief he developed a liking for letting the pulley weights drop and showed some spark of intelligence when he laughed at the noise. By degrees an interest in what went on around him was aroused and he tried to repeat what was said to him. With those of us who understood him best he grew more manageable, modified his grunt, would say words and sometimes short combinations and then his fond parents took him home.

I will call your attention to but one more case. E— came to us this year, a Mongolian, with funnel chest, mouth open, tongue protruding, adenoids, and a tendency to sit and walk bent over. We ascertained that he could breathe through his nostrils and we put him on special work at once. In three months he gained fifty cubic inches in lung capacity or at least in ability to blow the spirometer properly. Think of what that meant in power to oxygenate the blood, and indirectly help on all the normal bodily functions. Ten years of age, he had always suffered from constipation, now a laxative is seldom needed but it took six months of massage and exercise coupled with care in diet, plenty of drinking water between meals and the help of a dentist to effect the cure. His teeth were in a bad condition, he would not and never

had chewed anything, therefore he had been fed on soft foods and liquids and nature makes no provision for a ten year old boy to thrive on infant's food.

Just a word in regard to general exercise. We have found that individual work until a child has learned the fundamentals is necessary. After that the stimulus of working with others is helpful, and better results will be obtained. We begin with the larger groups and gradually bring into play the more specialized muscles. I believe that unless a child be physically imperfect he may learn to use his body much as a normal child does except for exercises requiring great skill or powers of co-ordination, and inhibition of a high order. He may not work so fast or in as good form, and it may take him months, even years, to learn what would come almost instinctively to his more favored brother, but often when days of untiring effort have been spent on one thing, a child will do it suddenly and never fail again. The exercises should be a continual progression and while order of work is not to be memorized the individual training is necessarily a repetition until the mastery comes. Except in club swinging where the effects are psychological rather than physiological drill work has no place in our gymnasium. The attention that has to be given during the commands in marching develops alertness but primarily the children go to the gymnasium to exercise and get the blood away from rather than increase the flow to the brain by useless memorizing.

Dr. Gulick, general supervisor of physical training of the city of New York, in his book on Physical Education says, "From one-third to one-half of the brain surface is concerned in making muscles contract definite areas being in relation with definite muscles or groups of muscles: but this does not prevent these parts of the brain from being used in other ways also. Although we know little about the function of different portions of the brain we do know that it is necessary to have muscular exercise of any group of muscles if the corresponding nerve center is to be developed. Hence if the full development of the entire motor area of the brain is to be achieved the muscular functions of the body must be exercised to their full capacity, not merely must each muscle become powerful but the faculties of co-ordination and control must be developed."

A child fresh from the piano will not need finger work in the gymnasium but a daily lesson should exercise all the muscular functions that do not receive attention elsewhere, should aim at co-ordination and inhibition and guard against automatic work. Once brain substance is developed it is the duty of the class rooms to make it useful and we hold that drill work in the gymnasium memorized to be forgotten in time is not useful and is a waste of brain power. More than this it sacrifices precision of movement for order and rhythm. We cannot demand that the children follow a sequence of exercises and at the same time claim attention for vigor and accuracy. If normal children have not the time to spend profitably on drill work much less have ours with their weak minds.

Our class exercises are given one at a time first by command, then by

count and finally when a fair degree of exactness has been attained, to music but never in faster time than the average child can take. In closing let me ask you again to refer to the chart. Dr. Wylie, in his study of the mentally deficient, concludes that they are sub-normal in height and weight. While the former may be true our children do not prove the latter. All our measures are taken in a proper robe therefore it was impossible to compare them with children whose records were made in school dress because the average weight of clothing varies at different times of the year, and to get the real weight of the child minus his school dress would be to deduct from seven to ten pounds for clothes.

College charts I believe to be accurate and I shall begin with Dr. Seavers' representing the average measures of 2300 Yale students. One per cent of these represents a height of sixty-two inches and a weight of one hundred pounds. Our children of an average of fifty-four and seven-eighths inches in height, weigh eighty-one and seven-eighths pounds. When these same children grow to be fifty-six and one-eighth inches they weigh eighty-seven and two-sevenths pounds. Therefore for a gain of one and one-fourth inches they add two and twenty-three fifty-sixths pounds to their weight, or in round numbers they gain one pound for every one-fourth inch when not working to reduce flesh as the older ones were in the next measurements. We may suppose then that when they reach sixty-two inches if they ever do in gaining five and seven-eighths inches in height they will add t venty-three pounds to the weight bringing their average to one hundred and ten or ten pounds above the Yale students. The Amherst chart represents 1322 measurements. The lowest height is sixty-three inches and for this they weigh one hundred eighteen and one-half pounds. Working again on our growth hypothesis our children when sixty-three inches in height will weigh one hundred fourteen pounds or a little below Amherst but as the Amherst chart does not increase in the same ratio, when our children reach sixty-five inches they would weigh but one-tenth pound less than the Amherst and two pounds more than the Yale students. Of course this is merely interesting. Periods of growth in height in relation to periods of growth in weight would have to be studied more before any reliable deductions could be drawn and our numbers are not large enough to prove anything.

The Oberlin chart makes a fairer basis because out of 1600 female students one per cent averages fourteen years and one month. Comparing with our children of thirteen years eleven months, we find the Oberlin students while two and thirteen-fortieths inches taller weigh two and thirty-nine-fortieths pounds less. Carrying the comparison farther we take two and one-half per cent of the 1600 averaging fifteen years of age and compare with our children of fourteen years eleven months, and again Oberlin is two and three-fortieths inches taller and weighs one-half pound less where they ought to weigh several pounds more. In going over our books I find forty-one measures of children taken between the ages of fourteen years, and fourteen years, nine months. Several of these represented two measures of the same child. The average age was fourteen years five

months and averaging the Oberlin chart of fourteen years one month, and fifteen years to bring it to fourteen years six months, we find the Oberlin girls of fifty-seven and seven-tenths inches weighing eighty-two and six-tenths pounds or one and seven-fortieths inches shorter and nine and three-twentieths pounds less than ours in weight.

	OBERLIN		OBERLIN	
Age	14—1		15—	
Weight	78—9		86—8	
Height	57—2		58—2	
Height sitting	30—1		30—8	
Neck girth	27—4		27—8	
Chest repose girth	666		685	
" full "	709		726	
" empty "				
Ninth rib "	595		609	
" " full "	636		649	
Waist	527		543	
Hips	756		778	
Thigh	428	428	447	446
Knee	293	290	298	298
Calf	269	269	279	279
Ankle	174	174	178	178
Instep	188	188	189	189
Upper arm	201	199	210	207
" " flexed				
Forearm	196	191	200	198
Wrist	130	129	133	131
Hand strength	23.1	21.2	25.1	24.1
Leg length				
Lung capacity	65—4		78—1	
Neck breadth	78		79	
Shoulder breadth	318		325	
Waist "	183		188	
Hips "	268		279	
Chest depth	136		139	
Abdomen depth	129		133	

DISCUSSION

Dr. Beaton: This paper by Miss Jacob has an important bearing on the training of feeble-minded children, and perhaps it will be well to have the discussion now. We are open for any discussion or remarks.

Miss Hannon: I listened with a great deal of interest and pleasure to Miss Jacob's very able paper, from which, no doubt, every one of us will get valuable information. I should like to ask one question, if I may: How far do you think physical culture ought to be carried in the line of entertainment work?

Miss Jacob: I really don't feel quite capable of answering that question. We do not make our entertainments a feature of our school work. I understand that one of the reasons for giving drills is to catch the public. We don't work for the entertainment of the public. We do some fancy marching, but the children are never required to memorize. We do not believe in drill work. We have two teachers, and there are twenty-six children. We work five hours a day, and have plenty to do.

Prof. Johnstone: I think there has been one thing just brought out by Miss Hannon's question that it is well for us to keep in mind. In a small institution, as Miss Jacob says, with two teachers for twenty-six children, they may be able to say that they don't need any drill work for entertainment purposes. I think that in none of the large institutions are gymnastic drills given as part of the physical culture. We have our gymnasium downstairs and our hall upstairs with dumb bells, wands and brooms, where we do our fancy work for entertainment purposes. We find that very necessary. But Miss Jacob has given us a thought which I think we should observe very carefully. Physical culture work that requires memorizing and close attention is harder than any other school work, excepting mathematics, and therefore should have the place in the work for feeble-minded, that arithmetic has in the higher departments of learning. Now, in our large institutions we have to find something to take the place of this individual work, which we cannot give, because of lack of time, money, etc., and it has struck me that perhaps the thing which is going to give this apparently individual physical work is to be done on the play field as play, and that in the larger institutions we must begin to have definite lines of play which will develop the same muscles in exactly the same spirit, and I believe a little better spirit, possibly, than can be given in any gymnasium. We have taken our first step by the two graded plots of land which you see here, which we call the girls' gymnasium and the boys' gymnasium. They are now nothing but a flat piece of ground. Prof. Nash and I have already decided what we are going to do on it. The idea is to begin definite lines of gymnastic work, and therefore get this freedom that the children require to make physical training take its place, for the physical work and not for the mental work that goes with it, in other words, to send the blood to the muscles, instead of sending it to the brain, to make the muscles do the work.

Miss Jacob: I should like to ask Mr. Johnstone a question. The work

that you do in the gymnasium takes in your higher children. Now, those same children are the ones who are going to play when they go out-of-doors. How do you reach your lower grade children?

Prof. Johnstone: I must confess to my shame that it is entirely true that the ones who need it most get the least training. These are circumstances over which we have not yet control.

Miss Jacob: The physically perfect children are the ones who take hold of the games, while the slow children are generally left out. I think that question will have to be settled some time in the near future if gymnastic work is going to hold the place that it should.

Dr. Bernstein: There are two sides, the school side and the custodial side. A good many of us believe that all these cases should be custodial cases sooner or later. We are trying to make all the use of the individual that we can. Now, if in the private schools they are going to do all they can, and we are going to do the same in our state schools, are we not working to the same end? The question occurs whether or not it is better to make these people automatic entirely, and lead them along the line of industrial work as soon as possible. Let them do it without much mental effort and study.

Prof. Johnstone: I would rise to protest very strongly.

Miss Gundry: Something ought to be said about the different classes of people that are being educated. In the private schools they are very different from those in the public schools. The private institutions get the class, the parents of whom require much more than the public ever require, and we have to strive for that all the time. We do not always get it, but we have to strive for it all the time; therefore when Dr. Bernstein makes a comparison with the Seguin School I don't know what to think of it, because we are trying to do for our children what some of the public institutions never would think of doing,—what it would not be advisable to do.

Dr. Bernstein: I don't know that Miss Gundry grasps the point. I think they should not be educated to a point where the parents think they are no longer feeble-minded.

Dr. Mogridge: I think Dr. Bernstein has entirely the right idea in regard to feeble-minded children, that is, the custodial care of them. I certainly believe that the feeble-minded child has no place in the outside world, that is, if it is not to be cared for custodially by its parents or guardians. We in institutions are gathering children from all classes of society, rich and poor alike. Those of wealthy parents possibly may be removed and cared for, nevertheless, I believe the higher principle of training as well as custodial care of feeble-minded children is the one that the Association ought to advocate. That has been brought out, and I want to endorse this idea. This opinion seems to prevail. In the State of New Jersey there is, I believe, a law that no child shall be removed from the institution unless the superintendent certifies that the child is "cured". I wish we had such a law in Iowa. We have children in our institution now whose mothers and fathers were there years and years ago.

Miss Gundry: I do not want to be missunderstood about custodial

cases, because I believe in custodial care very decidedly, but I do want to say that the private institutions have to do different work,—they are expected to do it. They have smaller numbers, and the parents expect a great deal of individual work, and a different class of work. We meet a great many parents who have a perfect horror of their children being taught manual work. This is not so in all private institutions. These are only individual cases. It depends entirely upon the people. For this reason I say comparison is so difficult between the purely private schools and public.

Dr. Beaton: There is no comparison at all.

Prof. Johnstone: Mr. President, I think we are in danger of taking an extraordinary view of this matter. I don't believe there is any person in this Association, nor anyone who is present here, who does not believe that every really feeble-minded child must have, if we are going to do our work properly, permanent care, but when custom says that every child who goes to an institution for the feeble-minded shall have all that he *can* be taught, I object to that very much. I don't think that the feeble-minded child should have all that he *can* be taught, because we can, as found in the history of this institution, teach children more than they ought to know. We have trained them until they cannot be kept in the institution. However, we should take the intermediate stand that the child should have permanent custodial care, and should be trained until he learns all that he *should* know. We have five or six children in this institution who could go to school, but we all believe that they have learned all they can use to good advantage in the institution. That is, what they are fitted for, if they stay in the institution all their lives. After all that has been said in the last fifteen years, I am sure none of us should be mistaken as to what should be done.

Dr. Knight: I should like to inquire if you believe permanent custody should be made for all feeble-minded children? What do you do with your boys? Would you keep them here forever? I don't think so. It would be a mistake.

Dr. Wilson: This discussion is getting to be very interesting. I had hoped that I might hear something along this line. This is a business proposition. Does the amount of money that is spent for these children do any good, all that it should? What are we teaching them for if they are to remain here for life? What is the result?

Dr. Rogers: I think there is no difference of opinion when we get down to the bed rock. We are teaching and training them to be useful and to make them happy. I think there can be no difference of opinion as to that whether they are in the institution or out of it. Our whole experience suggests the village community life. The abnormal child does not belong to the normal population. Even our boys, Dr. Knight, have made absolute failures in trying to work outside. They get into bad society, form bad habits, get to drinking, and lose their positions that they may have had for a while, especially when the hard times come. If you hire a man to take care of your horses, you want the best man you can get. If he is a carpenter, you want the best mechanic you can obtain, and these boys cannot stand the

test. In the end they drift back into the institution or into jail, with very few exceptions. Therefore the thought is that we must provide the system that will make permanent institution life attractive and satisfying. This can be realized only in that system that involves the largest development of individual character, and personal initiative in the social and industrial activities of their necessarily restricted community life. It is character making that we are after. (Applause) I cannot endorse this suggestion of my esteemed friend, Dr. Bernstein, that the feeble-minded should not be educated. We should not put up any bars across a pathway already narrow and full of obstructions. Are not our simple people entitled to the privilege of forming ideals toward which, according to their respective limited abilities, they shall work with as much sincerity and earnestness as we who attribute to ourselves superior wisdom?

Dr. Bernstein: I firmly believe that no feeble-minded person should be taught to read and write, because I know some of the results of that teaching. I have seen any number of feeble-minded children, who, if they had not been taught to read and write, would have been happy in an institution. They are making their parents unhappy when they come to visit them. As I say, if they are to be made custodial cases, they must not be made unhappy in an institution. We get a great many who have been educated, and those who have not been educated. We are sorry that we ever taught any of them to read and write, because they find what they are losing in the world and are constantly hankering after it, and it makes them miserable and their friends miserable, and they oftentimes run away and make the community miserable.

Dr. Rogers: I think there is a real difficulty sometimes as suggested by Dr. Bernstein in the matter of reading, in determining the proper course with regard to certain details of education and training. But here again I must differ from Dr. Bernstein as to excluding the privilege of reading from all feeble-minded children, though we certainly should be exceedingly careful in selecting the reading matter used by them. I am not willing to concede that because we have made mistakes in our methods, as we all have, that we should deprive the children of the results of better methods, for such better methods on our part would produce the desired results without the undesirable complications. Libraries and periodicals afford today indispensable adjuncts of higher and technical education, but they are accomplishing present day results because they are managed by competently trained librarians who know how to direct students in the selection of the literature desired, so in institution life proper books and periodicals bring into our children's lives the mental and moral pabulum required for character forming, and the stimulation of mental activities in ways that are attractive to the children and that cannot be provided in any other manner. The very fact that the child can acquire the information and can exercise his imagination in the picturing of the incidents described by his own efforts and initiative adds to the particular value of this kind of education. Therefore we should be critical of our methods of supplying material and of selecting its character

rather than to condemn such a valuable auxiliary because of defects of application which are not inherent in it. In the first place no reading matter should ever be allowed in a public institution the influence of which is detrimental to the child; then in selecting reading during the course of training it is exceedingly important that that reading be adapted so far as possible to the nature of the child. Much reading that is helpful to one person is harmful to another. Efforts should be made to supply the child with the class of reading adapted to his comprehension that will tend to counteract this nature. This problem is not different from that involved in the training of our normal children only that it is a much more difficult one to solve because of the size of the family and the inability to keep all who have to do with these children in harmony with its purposes and spirit. Then, parents, as a rule, are naturally the last to recognize the necessity for the special community life for their defective children and they are often inclined to supply the child with that class of literature and periodicals that is hurtful. In my own case I must frankly admit that I have allowed the introduction of newspapers without much restriction, before I realized as fully as I believe I do now, the impropriety of the same. However. with only three or four marked exceptions, the boys who have been determined not to stay in the institution and yet who very evidently should do so, have really found our institution life more attractive than the outside world and have returned to it for final refuge.

This subject of the selection of reading matter I think worthy of a very extended discussion, but as we have already gone beyond the legitimate discussion of Miss Jacob's paper, I will only add that I believe that if all people who have to do with the training and care of the feeble-minded were fully possessed with the idea that the primary object of their work should be to make the most of the child in character building as well as economic utility, methods would take care of themselves.

Prof. Johnstone: I just want to ask, if the institution is to be custodial, what place has any of the outside world in it? I object to some of the teaching that is being done in Dr. Rogers' institution and in Dr. Knight's institution because they are introducing knowledge of the outside world, that is not to appear in the children's lives. Let their reading be purely imaginary, and their training based on the things that can come into their physical, mental and moral life on the few acres on which they are to live all their life. The newspaper has no possible place in the institution for feeble-minded. Of course, if we give in our institution and in our training things that will be permitted out of the institution, we must expect by all means that we have to fight that evil hard. If we confine our children to our own grounds, then we are giving our children an intimate knowledge of their own environment, and the things that they must see in their own environment. They will fill their world right full, and they will fill themselves right full of their world, and you and I can spend twenty years of study and be pretty broad men from the standpoint of custodial men, in doing just that. (Applause.)

Dr. Rogers: I agree with Dr, Bernstein that the children who are

moral imbeciles should never learn to read and write, but they are a small percentage.

Dr. Murdoch: It seems to me there is a very happy summing up of this matter in the motto of the institution which we are visiting today.

"The true education for boys and girls of backward or feeble minds is to teach them what they ought to know and can make use of when they become men and women in years."

Dr. Keating: I want to tell you about the Kentucky institution. We were comparing the two institutions, his and mine. About eight or ten years ago they abolished the schools and do not teach the children anything except a little manual training. Now, when Dr. Hill came to my institution and saw the children on the farm, he said: "Where are your attendants?" I said: "One over there, and possibly another somewhere in a different part of the place." He said: "Why don't the children run away?" I said: "They don't want to run away." "Why," he said, "I have to keep a guard over ten or fifteen boys. They want to get out and run away." Now, I don't allow my children to select their own books, but I encourage them to read, and yet we don't have them run away. Now, we do have a few boys who are getting restless, but that is due to the parents, not the intelligent parents, but parents who are feeble-minded themselves. They want to take the children away, but we find that if the parent dies or moves away from the children, they will be perfectly satisfied to stay with us all their lives. If we did not teach them to read and write, it seems to me that it would take the little pleasure that they get out of their lives, from them.

HYDROTHERAPY IN THE TREATMENT OF FEEBLE-MINDED CHILDREN

READ AT VINELAND MEETING, 1905.

LOUISE PATTERSON, M. D., VINELAND, N. J.

IT has been spendidly said, "The truly great stand upright as columns of the temple whose dome covers all". Hippocrates, the father of medicine, was truly great, but if he could wake from his long sleep of 1500 years, and look over the various therapeutic agents in use at this stage of the world's history, he would doubtless be astounded. Every available space in the medical journals teems with advertisements of the so-called healing agents. Patent medicine venders grow rich on the credulity of the people. Truly of making many drugs "there is no end", and some, if not all of us are led to exclaim with one physician: 'Medical men are tired of the many new hypothetical systems that are thrown aside as rubbish, only to be replaced by similar ones".—Virchow.

Osler, in his review of the contributions to medicine during the nineteenth century referred to "a large number of drugs, the action of which we know little, yet we put them into bodies, the action of which we know less," and have we not all been more or less guilty in this respect?

If we could get into the complete confidence of the pharmaceutic agent we would learn that thousands of tablets and pills are sold in which there is no medication whatever. One Minnesota physician, wishing to make a test of these blanks, purchased a variety and dispensed them, as he said, "for all manner of ailments". To use his own words, "I am forced to acknowledge that seemingly as may cures were wrought, and as many patients returned for more of the wonder-working but drugless blanks as returned for calomel, acetanilid, quinine and ipecac, and I cannot help believing their effect was less harmful".

Let us look at a few diseases,—rheumatism for instance. There are a thousand and one drugs indicated or advertised. How much does any one of them do toward a cure? Think of typhoid fever, pneumonia, and scarlet fever! Can we cut short an attack of any one of the above mentioned diseases by any drug at our disposal?

Osler says of pneumonia: "It runs its course uninfluenced in any way by medicine". He says again: "The profession was long in learning that typhoid fever was not a disease to be treated with medicine". Of scarlet fever he says: "There are many specifics vaunted, but they are all useless." And so we might take other diseases, and quote other authors.

I would not dispense with drug medication entirely. Quinine may be of great service in malaria and allied diseases, but we have all seen it fail. Bi-chloride and the iodides may be specifics in cases of syphilis; antitoxines may be a boon to humanity, but considering the thousands upon thousands of so-called remedies, the specifics are very few, and the physicians should be able to discriminate between the "wheat and the tares".

Digitalis will help a rapid, irregular, feeble heart, but, so will an ice bag placed over the heart area. Strychnine will increase the respiratory rate and capacity; so will a short, cold douche or short ice compress after reaction occurs, and hot and cold will do better. Acetanilid, and other coal tar products, will reduce fever, so will cold baths, and they have the advantage of increasing the red blood cells, while the coal tar products, diminish them in a marked degree.

When in the seventeenth century the celebrated Sydenham wrote his treatise on fevers, he almost made an apology for advocating the use of such a simple remedy as water. Since then a great change has taken place. It is no longer necessary to apologize for using water in the treatment for disease, for scientific men like Wintenitz, Baruch, and Currie, across the water, and Bell, Hare, Kellog and others in America, have lifted hydrotherapy above mere empiricism, and placed it on the scientific basis which it now enjoys.

We wonld not wish to give you the impression that we rely entirely upon water to the exclusion of all other therapeutic agents; for electricity, massage, exercise, a rational dietary, all play an important part in the

healing process; but for building up the resistance, increasing the red blood cells, strengthening the heart, invigorating the whole system, water in some of its forms is a powerful agent.

Shortly after we began the work at the New Jersey Training School, we decided that we would give treatment that would build up the general health of the weaklings. We went over the recent hospital lists, picked out the weak ones, from the simply feeble-minded to the lowest grades, secured the services of a nurse who could give the treatment. The number treated was thirty-five, many of whom had been in the hospital more or less during the past year. Treatment was carried on from two to four months, as was thought the cases demanded. The results exceeded our fondest hopes; through this severe changeable winter only one of those children has been sick, and he had a slight attack of acute articular rheumatism. The treatment given was tonic hydrotherapy mostly with massage or electricity, as indicated. These treatments, with a rational diet, plenty of out-door air and exercise, do the work, and prove our theory that these things will do more for the sick child than all materia medica.

Ten of the low grade children, after a careful physical examination, were ordered a cold plunge and brisk rub down every morning. Some of them were quite low physically as well as mentally. These children have made a marked improvement physically.

I have only one bad case of tuberculosis, so far as I have been able to discover. He last June weighed eighty-three pounds, and as early as that hydriatic measures were tried on him. He had creosote up to September first (when he could keep it down), but nausea was one of his drawbacks. In June he was put outside to sleep, and there he has slept since with the exception of five weeks in the winter, during which time he ran down rapidly, lost his appetite, had a cold and cough and much more fever; he was put out again and soon gained what he had lost. After September first he depended entirely on water treatments, diet and fresh air. He has gained twenty pounds, is red and rosy, has practically no cough and no fever, except when he has an attack of acute indigestion. He is up and enjoys life, but I am very slow to pronounce him cured of tuberculosis. He is still having treatment, and is being watched very closely.

Another case had an uraemic convulsion directly after some violent exercise. We found he passed about one ounce of urine in twelve hours, and found albumin but no casts. He was given one pint of warm water to drink every hour, fomentations to his kidneys every four hours, injections of warm water twice daily, hot blanket pack twice daily. In the next twenty-four hours he voided three quarts of urine with a marked reduction in the amount of albumin. He began improving in two days, and was soon in his usual health. He still has a trace of albumin, however, but with constant watching and one and one-half quarts of water taken between meals, we do not anticipate any alarming symptoms.

Another boy seven years old had broncho-pneumonia on the left side, and croupous-pneumonia on the right; the right lung was badly involved.

He had a very distressing cough, and was given something to help him in that line. His other treatment was fomentation to the lungs for one-half hour every four hours, followed by ice cold friction all over; a cold chest pack was worn between the treatments; he had leg packs to relieve pulmonary congestion; bowels washed out daily with cold water. For two days it seemed as if his heart would give out and he had several severe attacks of heart failure: when he began to improve he had an effusion on the right side. Tapping was suggested, but I have seen very serious and severe cases of the above absorbed by treatment. He was then given hot and cold to his lungs every two hours, followed by ice cold friction all over, to increase the red blood cells, and a cold pack was worn between times. The result was, absorption of the fluid.

Another boy, twenty-nine years old, had intestinal obstruction, due to seeds, stones, etc., that he had swallowed. Massage and high rectal flush were tried—no result. Faradic electricity was given and the desired result followed in fifteen minutes. This was a tedious case and he needed constant care, owing to a local condition of the rectum. He was kept on a liquid diet, (hot water for the first few days and afterward milk), and he lost flesh rapidly. Tuberculosis was strongly suspected, but he had no cough or night sweats and shortly after this began to improve, and I am happy to say gained forty pounds in four months.

Two cases of typhoid, one of which was complicated with a very serious bronchitis and delirium from the first week, had ice bags to the head constantly, cold compress to abdomen changed every ten or fifteen minutes, fomentations to the chest every three hours, followed by the cold bath, hot to spine as a sedative, cold chest pack worn between treatments, one and one-half to two quarts of milk every twenty-four hours. Both made splendid recoveries.

Two case of erysipelas had local applications of ichthyol to the lesion, changed daily; cold sponge baths every two hours, liquid diet, bowels kept well open, hot water to drink every hour. The disease was improving in a short time.

In cases of contagious disease, the plan is to quarantine promptly. Keep elimination up in every way possible, combat the fever with sponge baths, use every possible means to prevent the spread of the disease, and treat complications as they arise.

All sick children have a liquid diet as long as the temperature is up, and are fed frequently, depending on how much they take.

In a case of acute articular rheumatism, absolute rest in bed, liquid diet, no meats or broths, little or no nitrogenous food, fruit juices, predigested cereals or milk, hot blanket pack to profuse sweating, once daily—keeping the head and face cool, and an ice bag over the heart if necessary, follow this with a soap wash and alcohol rub. Give fomentations to the joints every four hours, ice cold friction all over. A cold compress is worn on the inflamed joints between treatments, warm asidulated water (dilute lemon juice) one pint every hour, except near meal time; encourage elimination

in every possible way and the patient comes out in better health than if fed so many nostrums.

Allow me to repeat—good, wholesome food, God's sunshine and fresh air, hydriatic treatment, exercise or play in a sand pile will do more for sick or well children than all materia medica.

DISCUSSION

Dr. Beaton: This is a very important paper, bearing very closely on the care of the feeble-minded. Perhaps it is well to have a discussion now. I presume Dr. Patterson will be glad to respond to anything that is said.

Prof. Johnstone: May I make a few remarks in connection with what Dr. Patterson has said? Many of our children are wearing little cards, somewhat similar to the ones we are all wearing, saying what they do, and what of interest that will be noticed here, they are taking part in. You will find on the cards of those children who took this special tonic treatment, that fact noted, and I call your attention to it because they were all children who spent their time during the year previous in the hospital, to a great extent, while only one of them spent any time during the past winter there; and I would like to have you note the result of their general physical condition, as marked on their card.

Dr. Beaton: We would like to hear Dr. Knight.

Dr. Knight: I have no paper, Mr. President.

Dr. Beaton: We would like to hear what you have to say on the paper just read.

Dr. Knight: Well, I was very much interested in this paper of Dr. Patterson, and I am very glad to know that water is so valuable inside, because I know from the experience of one member of my family that it certainly has been very efficacious on the outside. Of course we all believe in hydrotherapy, and I could not help but think, as I listened to Dr. Patterson's paper, of my experience of two years ago. Some of you may know that my small daughter, when she was very young, had a very severe attack of what the doctors called low rheumatic fever, which involved all the serous membranes of the body, and particularly the heart, and she was very ill for fourteen weeks, with three relapses. The attack took place in New York City, and of course all my doctor friends were there, and were much interested in the case. Well, we had to take extra care of the little girl for a good many years; in fact she was not allowed to walk for over twelve months, and while in all that time she never had any feeling of suffocation, yet both the valves of the heart were seriously affected. There was a gradual improvement three years ago. I had heard a great deal about Nauhide treatment, and so, two years ago, although I was very skeptical, we packed our little grips and started for Nauhide. I will simply say that I think there is a great deal of efficacy in these baths at Nauhide. You will pardon me for speaking so much about my own family. That paper put me in mind of Nauhide and the value of the treatment there. Now, of course, being a

physician, I had the *entree* to all of the different baths, and I had the privilege of examining a great many patients. I recall in particular a case of locomotor ataxia, which in three or four weeks walked all around the town. I am very glad to know from Dr. Patterson that water is valuable on the inside in every case. It is valuable on the outside in many cases.

Dr. Rogers: I would just add this word, I believe that the value of water has not been fully appreciated as a therapeutic remedy. I would not want to make as broad a statement, perhaps, as the doctor implied in her paper, that everything else must be discarded, but I have during my entire life, even before my study of medicine began, had great respect for water as a therapeutic agent because of certain things that I had known of its use. I think we should remember that the whole field is open, and we must select from this whole field that which meets the requirements, whether it be something that is compounded in a drug store or dipped from a spring, and we must not forget that while on general principles water is a very safe remedy, fairly safe as a beverage, in reasonable quantities, Dr. Knight, on the other hand water is also as dangerous a remedy in the treatment of disease, if not intelligently administered, as any drug might be. The point I wish to emphasize is that the true physician selects his remedy from the whole field. I think we do not any of us like to recognize the fact that there is such a thing as a school of medicine. If water will do the work, use it,—if anything else will do it better, use that. Dr. Patterson's paper is a very valuable contribution to our literature. I want to say that I have sufficient faith in hydrotherapy to build a room in which hydrotherapy is to be used, and we expect to make it one of our special features.

Dr. Beaton: Your paper has not been criticized very much, Dr. Patterson.

Dr. Keating: I would like to ask Dr. Patterson if she has anything to say in reference to the treatment of epilepsy.

Dr. Patterson: I would like to state that I do not wish to create the impression that I would discard every other therapeutic agent, but I do wish to create the impression that water will meet nearly every indication. It is a very dangerous remedy to use. You could give a man a bath that would kill him just as quickly as a pistol. It must be used very carefully indeed. You must make a very careful examination. With reference to epilepsy I would say that I am just beginning a series of treatments upon epileptics. I believe something could be done for them. Of course we always have to take the dispositions of these cases into account, and it is very hard to deal with them, but I hope that at some future time I will be able to make a report of the success I have had in this treament.

Dr. Beaton: I hope you will be able to make a very favorable one.

In Memory
of
Dr. Gustavus Adolphus Doren

BORN AT ATHENS, TENNESSEE, MAY TWENTY-FIFTH, 1838.
DIED AT COLUMBUS, OHIO, TUESDAY, MARCH
TWENTY-THIRD, 1905.

SUPERINTENDENT OHIO INSTITUTION FOR FEEBLE-MINDED
YOUTH FROM 1859 UNTIL TIME OF DEATH.

MEMBER OF ASSOCIATION OF AMERICAN INSTITUTIONS
FOR IDIOTIC AND FEEBLE-MINDED PERSONS FROM ITS
ORGANIZATION IN 1876.

PRESIDENT OF ASSOCIATION 1878–9.

DOCTOR GUSTAVUS ADOLPHUS DOREN.

As we gather in the Twenty-ninth Session we are reminded that none of those who responded to the roll call at that first meeting at Elwyn in 1876 are left to direct our work or lend counsel to those who succeeded them.

The last of that group to pass to eternal rest was Dr. Gustavus Adolphus Doren, for nearly forty-six years the superintendent of the Ohio Institution for Feeble-Minded Youth, who died at that institution at Columbus, Ohio, on March 23d, 1905.

While for several years Dr. Doren has not been present at these meetings because of the passing of his early associates and the growing cares of his institution—at the time of his death the largest in the world—yet he has always supported it by his membership and kept in close touch with its proceedings.

Resolved: That in the death of Dr. Doren the profession has lost a member whose record for successful institution administration, based upon superior executive ability, personal interest and integrity, devotion to duty and loving personal regard for the wards assigned to his care, has had no superior in this country. His retention as chief executive of the Ohio institution for a continuous period of nearly half a century, the high character of the institution's work and its broad plan of development, and the progressive methods employed for the improvement and kindly administered care of its inmates are the highest possible tributes to his personal character and ability.

Resolved: That our appreciation of these facts be expressed formally to his wife and family, the Board of Trustees of the Ohio Institution for Feeble-Minded Youth, and to Miss H. F. Purple, Matron of said institution during the entire term of Dr. Doren's administration.

Resolved: That a memorial page in the JOURNAL OF PSYCHO-ASTHENICS be dedicated to Dr. Doren.

A. C. ROGERS
J. C. CARSON
GEORGE H. KNIGHT

Vineland, N. J., June 3rd, 1905.

MINUTES OF THE PROCEEDINGS OF THE TWENTY-NINTH ANNUAL SESSION OF THE ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS.

VINELAND, N. J., JUNE 1, 2, 3, 1905—MORNING SESSION, JUNE 1.

The meeting was called to order by President Beaton, at 10:30 A. M., in Garrison Hall at the New Jersey Training School for Boys and Girls, after attending the opening exercises of the school and visiting some of the classrooms. The members present were:— Dr. A. H. Beaton, Miss Mattie Gundry, Prof. E. R. Johnstone, Dr. Andrew Johnson, Dr. F. W. Keating, Dr. D. F. Lincoln, Miss Margaret McLean, Dr. Geo. Mogridge, Prof. C. E. Nash, Prof. W. K. Weissbrodt, Dr. Mary Dunlap, Dr. J. C. Carson, Dr. Geo. H. Knight, Dr. and Mrs. J. M. Murdoch, Dr. Chas. W. Wilson, Dr. Chas. Bernstein, Dr. W. M. Bullard, Miss Alice K. Morrison and Dr. A. C. Rogers.

There were also present as visitors the teachers of the Vineland institutions, Miss Marian Johnston, of Omaha, Neb., the Misses Metcalf and Lawrence of the Haddonfield School and the Misses Minor, Jacob and King of the Seguin School.

Letters were read from the following absent members: Dr. Martin W. Barr, Elwyn, Pa.; Dr. Geo. A. Brown, Barre, Mass.; Dr. A. W. Wilmarth, Chippewa Falls, Wis.; Dr. L. B. Baldwin, Grafton, N. D.; Miss Fanny A. Compton, St. Louis; Mrs. M. C. Dunphy, New York City; Dr. W. A. Polglase, Lapeer, Mich.; Dr. C. S. Little, Laconia, N. H. and Wm. Prior Letchworth, Castile, N. Y.

The following letter was read from abroad:

Den Kellerske Aandssvage-Anstalt, Overlaegen,
Brejning pr. Berkop. Denmark, 20-4-05.

Dear Sir:

I wish to thank you very much for your kindness in writing me or some of my assistants to go to America to visit the meeting of your association.

But we must stay by the institution here and can only follow the meeting by the report.

In the American Journal of Psycho-Asthenics I always read the proceedings of your annual session with large interest.

Yours very truly,
(Signed) Chr. Kellar.

To
E. R. Johnstone,
Superintendent of the New Jersey School for Imbeciles.

A paper on "Speech Training as a Factor in the development of the Feeble-Minded" was read by its author, Dr. G. Hudson-Makuen, of Philadelphia. The paper was discussed by E. R. Johnstone, Dr. Lincoln, Miss Metcalf, Dr. Keating, Dr. Mogridge, Dr. Kenyon, Dr. Rogers and Miss Jacob. (See September Journal).

The Association accepted the invitation of Dr. Mary Dunlap to visit the State Institution for Feeble-Minded Women during the afternoon.* The members enjoyed an inspection in the finely equipped gymnasium of the school where the pupils gave an exhibition of gymnastic work and rendered a number of musical selections, all of which were of very high order.

At the close of these exercises dinner was served to the members and a few invited guests from Vineland under the charming direction of the hostess. A pleasant half hour was occupied with short impromptu remarks the Hon. Benj. F. Lee, President of the Board of Trustees, acting as toastmaster.

EVENING SESSION—GARRISON HALL AT 8:30 P. M.

The secretary having announced the President's Address, Dr. Beaton responded as follows:

"I am afraid, my dear friends, you will be disappointed in the president's address for I have not prepared any formal paper. I wish to compliment you, however, on the large attendance at this association. I do not remember that we have ever had a larger one. This shows that you are all deeply interested in the work that is being done here.

It is now a long time since I first attended these meetings. I think I am the oldest one, in fact the only living member, who attended the meeting in Columbus, Ohio, in 1877. I wish to say that I have enjoyed immensely all the meetings I have ever attended. There are some of the older members here, Dr. Carson and Dr. Knight, whom I met a long time ago; I am glad to see them again. I hope you will have many, many pleasant meetings such as the one we are now having. It seemed to me the morning session was one of the most profitable and interesting of any I have ever attended. While the meeting was rather informal, the discussion brought out many points of interest and profit that will assist us all in our future work. I am sure that when we close Saturday night we will leave here feeling that we have been well repaid for the time and expense involved in coming.

I wish to thank the Association for the honor of electing me its president. It is a compliment that I highly appreciate, especially as I am a half foreigner; and I remember that it is the second time I have been thus honored, the first time being at the Lincoln, Ill., meeting. Again thanking you for these honors, we will proceed with the regular business of the evening".

The next paper, on "Hydrotherapy in the Treatment of Feeble-Minded Children", was read by Dr. Louise Patterson. The paper being open for discussion, remarks were made by Mr. Johnstone, Dr. Knight, Dr. Keating and Dr. Rogers.

A paper was read on the "Eyes of the Feeble-Minded", by Dr. Jas.

*Dr. Dunlap had provided a delightful entertainment by the children on the previous evening which such members as had reached Vineland in time attended.

Thorington. Remarks on this paper were made by Mr. Johnstone, Dr. Rogers and Dr. Wilson.

A paper was read on the "The Use of Thyroid Extract in the Mentally Deficient", by Dr. Chas. W. Wilson. Remarks were made by Drs. Murdoch, Keating, Kenyon, Carson, Lincoln and Mr. Johnstone.

FRIDAY, JUNE 2ND, AFTERNOON SESSION.

The members having devoted the forenoon to visiting the schools and different departments of the institution, the meeting was called to order by the Chairman at Garrison Hall, at 3 P. M.

Chairman: Since the last meeting of the Association one of our oldest members has died, Dr. G. A. Doren, of Columbus, Ohio. It seems fitting that some formal notice be taken of the Doctor's death. He had a large place in the work of caring for and training the feeble-minded in this country, and was one of the pioneers in this field. With this fact in mind I take pleasure in appointing three of our oldest members present as a committee to prepare a suitable statement concerning Dr. Doren's life and work for publication in the Journal. I appoint Drs. Rogers, Carson, and Knight, and ask Dr. Rogers to kindly act as chairman of the committee.

Dr. Mogridge, Chairman of the Committee on time and place for the next meeting, requests that all invitations for the next meeting be handed to him at the close of this session.

We will now hear Miss Jacob, who will present a paper entitled "Systematic Physical Training for the Mentally Deficient," (see page 98 of this number).

After the reading of the paper there was an extended general discussion.

A paper was then read by Dr. Charles Burr, of Philadelphia, on "Insanity at Puberty," (See Sept., 1905 Journal).

This was followed by the reading of a paper on "Asexualization," by Dr. Samuel D. Risley, of Philadelphia, (see page 92 of this number). Following Dr. Risley's paper Dr. W. N. Bullard presented an "Autopsy Report" with photographs.

Dr. Carson next presented a paper on "A Review of Legislation for 1904 in Relation to the Feeble-Minded and Epileptic," (See Sept., 1905, Journal).

Dr. Beaton: Dr. Lincoln has some notes on "Special Examination of Children in New York City," which he has kindly consented to present to the Association.

Dr. Lincoln: In certain of our cities an attempt has been made, as you know, to educate backward children in special classes in the public schools. There are about eight of these classes in Philadelphia, seven in Boston, about the same number in New York City, and a few in one or two small cities. Each of these classes contains from fifteen to twenty pupils under one teacher. Now, that means that in America we have about twenty-five to thirty special classes of feeble-minded children, not of as low grade as the average in this institution, but more or less feeble-minded. These children are placed in these small groups under fairly competent teachers

and are being trained for better or worse. The movement is an outgrowth of the system which exists in greater perfection in England and Germany. In London they have nearly ten times the number of pupils in such classes, showing you how much more systematically the English have taken hold of this matter. We are just beginning in America to see what can be done to relieve our primary and grammar schools from the incubus of this heterogenous element. New York has been attempting for the last two years to imitate a few of the things done in other very large cities. The people who have been trying to introduce this work into New York have large ideas, and would like to have one hundred classes at this moment, but they really have very few. About five years ago a lady living on Henry street near the Third Avenue Elevated Road, educated at Columbia University, started a class of feeble-minded children in school Number One near Chatham Square, New York. She has a school of about twenty boys and is doing splendid work with them. One of the lady principals by her own efforts started another class, but as she has since been promoted to the position of District Superintendent, she is now unable to follow up this special work. Several other classes have since been organized, though no general or systematic movement has been organized. I should say the expense is tolerative rather than orthodox. It has not become a part of the regular system of the city schools. This is not because the work is not well done nor because no effort has been made to secure recognition by the city, but because New York is such a big proposition and is so far behind in its accommodations for normal school children that it has been obliged to double up many thousands of them. Owing to this fact there is a feeling that the city cannot afford money to teach the feeble-minded children. I presume you will be astonished at the statement of a well-informed gentleman who told me that he thought there were at least ten thousand children of this description in the city schools of New York. I saw two buildings full of them two weeks ago. They did not suggest idiocy, but they certainly were feeble-minded. Dr. Berry, of the Department of Education, has appointed a gentleman by the name of Dr. Brown to make examinations of backward school children and he has at the present time a list of ten thousand to examine. He goes about his work in this way: He arranges by correspondence with the principals to visit one school, say, on Monday, another on Wednesday, another on Friday, etc. He then goes to a school, meets the superintendent, and examines such children as the principal suggests. I spent half an hour or so with him on one of these visits. He gives the city his time until three o'clock in the afternoon, and then he is free to attend to his private practice which is more or less of a special nature. As I stayed with him one child after another was called in with one or more teachers present. Information as to the knowledge of the pupil in reading, writing, spelling and geography is obtained from the teachers, but his first effort is to obtain a general impression of what the child is. He has a card before him. He looks quickly at the child's eyes, turns out the lower lids to examine their condition, looks at the child's mouth, tongue, teeth, palate and ears. Symptoms

of importance are noted. He will then make a child stand one or two feet away, and as he holds up his finger, make the child tell him what he has done, noting the quickness or dullness of the child's responsiveness. He will say, "When I count one, two, three, you must repeat the words after me," and so on. Similar tests are applied in different ways for the same general purpose. Hearing is tested by having a child turn his back while he sings a few words, first in an ordinary tone, and then in whispers. The general test of mental power is made very quickly. Shorter or longer exercises in mental arithmetic, varying in complexity with the age of the child, are given in quick succession. He will ask the child to tell him what is the opposite idea to the color white; what is the farthest from tall, what is the opposite of fat. He will ask the child what certain things belong to, as a wheel (of a bicycle), etc., etc. The bright child will answer these questions promptly, the stupid child indifferently or not at all.

I have tried to make this brief statement as clear as possible but will be glad to answer any questions.

SATURDAY MORNING, JUNE 3rd.

Dr. Beaton: We have still one paper by our young friend, Dr. Bernstein.

Dr. Bernstein's paper on "Tuberculosis" was then read.

Dr. Beaton: The Committee on Time and Place are now ready to report.

Dr. Mogridge for the Committee reported in favor of accepting the invitation from Iowa for 1906, and that the meeting be held in May or June, the exact time to be arranged by the Secretary.

On motion the report was adopted.

Dr. Beaton: Is the special committee on Dr. Doren's memorial ready to report?

Dr. Rogers: Your Committee appointed to report on the life and demise of Dr. Doren are not prepared to make a full report at this meeting, but I would suggest that the fact of Dr. Doren's death be made a matter of record at this meeting, and that a page of the Journal of Pyscho-Asthenics be set aside as a special memorial page to him.

Dr. Rogers: We will now hear the report of the Committee on Organization.

The Chairman, Mr. Johnstoné, submitted the following report:

For President: Dr. George M. Mogridge, of Glenwood, Iowa,

For Vice-president: Dr. Wm. N. Bullard, of Boston, Mass.

For Secretary and Treasurer: Dr. A. C. Rogers, of Faribault, Minn.

For Reporter: Mrs. Isabel Barrows.

For Journal:

Editor-in-Chief: Dr. A. C. Rogers.

Assistant-Editors: Dr. Fernald, Dr. Mogridge, Alex. Johnson, Esq., Prof. E. R. Johnstone, Dr. Wilmarth, Dr. Barr and Dr. Wiley.

On motion the report was adopted.

Dr. Bernstein: If it is not out of order at this time, I would like to ask if there are any blank forms for collecting statistics concerning the feeble-minded.

Dr. Rogers: I think nearly all the institutions use the same form. Four years ago a special committee, of which Dr. Bullard is Chairman, was appointed to revise the blanks for obtaining data of this kind. The blanks have been printed and are in the hands of Mr. Johnstone at the present time. We have all been dilatory about collecting material. Dr. Bullard stands ready to work up this data as fast as obtained.

Dr. Beaton: Is there any further business before we proceed to the Report of States?

Dr. Rogers: Mr. Chairman, I have the Treasurer's report if you desire it.

Report was read as follows.

TREASURER'S REPORT, 1904–1905.

Cash Dr.

Balance on hand June, 1904	$106.06
To cash Dues, 1905	30.00
" " " 1904	60.00
" " for Units, installation and care of Exhibit at St. Louis	140.00
" " Sale of Journals and Decennial Volumes	81.28
" " Advertising	38.00
	$455.34

Cash Cr.

By Stock and Ink for Journal of Psycho-Asthenics	$ 38.75
" Binding of Journal	13.25
" Postage	7.16
" Stenographic Work	50.00
" Proofreading and Clerical Work	25.00
" Telegrams	1.30
" Expenses Acc't Collective Exhibit	129.97
	$265.43
Balance on Hand,	189.91
	$455.34

On motion the report was accepted and filed.

Dr. Beaton: There is an opportunity now for the nomination of new members.

Dr. Keating: I would like to nominate Dr. Hill, of the Frankfort institution.

Prof. Johnstone: I would like to nominate for active membership, Dr. Louise Patterson, of Vineland.

Dr. Bernstein: I should like to present the names of Dr. Cyrus J. Severance, Mannsville, N. Y., associate, and Dr. Lasher Hart, Rome, N. Y., active.

Prof. Johnstone: I have several names that I would like to present for honorary membership. Four or five of these gentlemen have contributed to our program and are deeply interested in the work with the feeble-minded, Dr. Chas. K. Mills, Philadelphia; Dr. S. D. Risley, Philadelphia; Dr. G. Hudson Makuen, Philadelphia; Dr. James Thorington, Philadelphia; Dr. Chas. W. Burr, Philadelphia; Dr. C. T. Wilbur, Kalamazoo, Mich.

Dr. Rogers: I would like to present the names of Dr. E. C. Kenyon, of Chicago, and Dr. Arthur C. Jelly, of Boston, the latter by request of Dr. Fernald; and Dr. Elise Gordon, Cranbury, N. J.

Dr. Lincoln: I should like to present the name of Dr. Elias Brown, of New York.

On motion the persons whose names were presented, were elected unanimously.

The President feelingly tendered the thanks of the Association to Mr. and Mrs. E. R. Johnstone, the members of the staff, and board of managers and to Dr. Dunlap for their cordial and generous hospitality and entertainment.

The Association then adjourned to meet in Glenwood, Iowa, in nineteen hundred six.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX JUNE, 1905 No. 4

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, PH. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.
ALEXANDER JOHNSON . - - - - - New York, N. Y.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Postoffice at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

STERILIZATION OF THE UNFIT.

Those of our readers interested in the subject of the sterilization of the "unfit", will find the subject presented in an admirable manner by Dr. Risley in the leading article of this number.

We print herewith two additional contributions that will be of special interest at this time. First a translation of an article by Dr. Christian Kellar, published in "Tidsskrift", Vol. 7, No. 4. In this the doctor accounts for the difference in the attitude of the European and the American profession by the absence and presence of the moral imbecile in the populations of the institutions of the respective countries.

It must not, however, be understood by our European brethren that the profession in this country are by any means unanimously in favor of the

radical surgical treatment advocated by some, although the sentiment is rapidly becoming favorable to it when applied to cases of marked moral delinquency including habitual criminal adults.

Second: We print a short statement from Dr. Barr presenting data which he has collected concerning the results of surgical treatment in these cases:

A. C. R.

ASEXUALIZATION—ATTITUDE OF EUROPEANS

When Dr. Barr, the Chief Physician of the Pennsylvania Institution at Elwyn, in his recent publication "Mental Defectives" defined feeble-mindedness thus: "Feeble-mindedness including idiocy and imbecility, is a defect, either mental or moral, or both" he deviates from the usual limitations placed upon the term, as he includes in the term "feeble-minded" a class of individuals who are only morally defective and not intellectually so.

In Scandinavia, as in the world over, it is maintained that there is no feeble-mindedness without an intellectual defect. The moral defect may be absent or present, but the feebleness of the intellect is a *condition sine qua non.*

Of course, it may be only a contention of words if Ireland is correct when he, in his last book "Mental Affections of Children" in reference to "Moral Imbecility" states as his own interpretation that moral defect is always combined with at least some intellectual defect.

In practice, however, there is no doubt that there is a class of people, even quite numerous, whose invalidity along ethical lines impresses their entire being, while intellectually they do not suffer to such an extent as to place them below par as compared with the normal. It is just this class of individuals that has held the interest of the general public, and especially the interest of criminologists, during the last decade, and for whom society has time after time felt the want of a special institution -a combination of custodial and industrial features. It is a fact, though moral feebleness may or may not be combined with mental feebleness, that both groups are in the same degree in need of institution confinement for a longer or shorter length of time, and often for life. Outside of an institution, one group is detrimental to the other.

Dr. Barr's predecessor at Elwyn, Dr. Isaac Kerlin, whose valuable services in America awakened the interest of professional men and the general public in the morally feeble, placed the same interpretation upon the subject that Dr. Barr does, and admitted into his institution all classses of defectives, and the greater number of the institutions for feeble-minded in America followed in his footsteps. That this is true is shown time and again by the reports from the American institutions. It is only necessary to glance at the excellent illustrations found in the reports, without reading the text, to be impressed with the fact. Many of the portrayed feeble-minded differ greatly from the typical feeble-minded pictured in the European reports. In harmony with this was Dr. Kerlin's remarks to his American colleagues upon returning from his tour among the European institutions that he missed "Our excitable, 'moral imbeciles', a class furnishing us so much interest and so much anxiety." The text itself tells us even to a greater degree this difference in the old and new world. Without a knowledge of this condition, one is unable to understand the almost every-day reports of the achievements of the "feeble-minded" along technical, literary and musical lines. And, without this knowledge, it is even more difficult to understand the legitimacy of the treatment or management that is so zealously discussed at the annual meetings of the chiefs of the institutions.

One can still remember the surprise, amounting almost to indignation, of the Scandinavian institutions, as well as almost all of the European institutions, upon the receipt of a circular from the American colleagues, asking for information as to the extent of the practice of asexualization in the institutions for feeble-minded, the method of operation, etc. When the American colleagues, as it appears in Dr. Barr's book, felt the want of replies to their questions from the European institutions, it was certainly not because they had no practice to refer to, but because as the chief physicians at the Paris institutions said, we would not reply to anything like that. It was different in America—there the subject was discussed openly and freely, meeting after meet-

Annual meeting

ing, and recognized as of great social importance. It was practiced also—openly and freely. There is a record of fifty-eight asexualization operations on boys at one institution. And as Dr. Barr states, legislation was proposed making asexualization of inmates received at the institution compulsory. The bill was lost—for formal reasons, not for real ones.

The American reasoning, the already existing feeble-minded we cannot cure, efforts should therefore be directed towards preventing the invasion of another generation of feeble-minded, can surely gain the general approbation of Europeans. But with reference to the method for attaining this end, the Europeans stand astounded and misunderstand so long as it is not kept in mind that the American institutions are to such a great extent impressed by the moral defective, with or without intellectual defect. With reference to the feeble-minded in the European sense of the word, their custody, eventually for life, ought to be a satisfactory treatment. Their role as race progenitors is not so great that it is necessary to apply the American radical cure. We can get through with less.

And I am inclined to believe that when the American feeble-minded institution defines "feeble-mindedness" about the same as the old world does and turns away the morally, but not intellectually, defective the whole question of asexualization will drop. The feeble-minded institution can get along without the moral imbecile and the "Invalid" element that requires the custody and employment treatment, (this being arranged especially for it and can best be done in separate institutions for the two sexes), can certainly do without the feeble-minded, when the present unfortunate mixing ceases and the two institutions work independently of each other. (*Chr. Kellar—Translated for the Journal by B. Jensen*)

RESULTS OF ASEXUALIZATION

In regard to the subject of asexualization, the statistics are most meagre. The writer has collected data of eighty-eight boys, ages ranging from fourteen to twenty-two years. In every case, there was marked mental and physical improvement, the children growing stout, and acquiring large frames. There was no hair on the pubes or face, and the cheeks became round and prominent; indeed, they resemble large women. The singing voice in one case was also greatly improved. Four cases, although they improved, occasionally have attacks of temper and in another, who was subject to periodical nerve storms, there was recurrence but twice a year instead of over one hundred as before. The sexual appetite disappeared in all but two cases, and appeared in these only intermittently. In twenty-four who were epileptic, there was marked improvement in regard to the occurrence of the attacks. In four cases of asexualization in boys, ages ranging from fifteen to twenty-one, there has been marked improvement. The first case was a sexual pervert of the most pronounced description, who would solicit women on the road, and was extremely vulgar in every way, self-willed and brutal, and is now languid in movements, and has developed a most excellent soprano singing voice, and has improved in temper and habits. Number two was also a sexual pervert, descending from a neurotic family, the grand-mother insane, four uncles and his father insane, and he has seven feeble-minded cousins, and two feeble-minded brothers. Was sexually much excited at times, and much beside himself. Grew gradually quieter, and has been gentle and tractable. Another case of nerve storms has also improved. Another boy who was very frequently sexually excited, and beside himself, has made marked improvement in every way; was always thin, but has now taken on flesh, and is losing his violent temper, and in fact, is improving in every way.

The writer's preference is for ovariotomy in the female, and testiectomy in the male. He has never seen nor heard of any unpleasant sequel to the operation, and the recovery has always been prompt. He looks upon asexualization as simply a protection against ill, and his consideration of treatment includes prevention.—M. W. B.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX SEPTEMBER-DECEMBER, 1905 NOS. 5-6

ORIGINAL ARTICLES

SPEECH TRAINING AS A FACTOR IN THE DEVELOPMENT OF THE FEEBLE MIND.

DR. G. HUDSON-MAKUEN, PHILADELPHIA, PA.

SPEECH bears somewhat the same relation to the mind that the hammer and saw bear to the carpenter. It is the mind's most effective and most important tool. It is not only the vehicle in which the products of the mind are transferred and delivered, but it is essential also to the creation of these products, to their crystalization, collection and classification. Thought, in its highest sense, therefore, cannot exist independently of speech. Hence it is that if you deprive a person of speech you deprive him at the same time of his most effective means for mental development, and it also follows that if you train and perfect his speech you must greatly improve his mentality. In the normal child mental development and speech development progress simultaneously. Neither can be said to precede the other. The child thinks and speaks. If he does not speak when he thinks we at once suspect that there is something wrong with the organs of speech, and if he also fails to make use of the other forms of expression, such as gesture and pantomime, we even doubt his ability to think.

If there is no mechanical obstruction to speech in the peripheral organs,

and if the hearing apparatus is intact the character of the speech is our best index to the operations of the mind, and the educability, so to speak, of the speech will be in direct proportion to the educability of the mind. Thus the study of the speech of the feeble-minded becomes a valuable aid in the diagnosis and prognosis of their condition. Defective speech is both a physical and mental sign of feeble-mindedness, but it is by no means a pathognomonic sign, for it may be a cause and not a result of the feeble-mindedness.

In the Therapeutic Gazette of December 1896, (Speech Defects; Their Causes and Treatment) I published a report of a case in point. A boy nineteen years of age had been unable to speak intelligibly. It was thought by his family and physicians that his defective speech was due to an organic cerebral defect, and their prognosis was, therefore, unfavorable and even hopeless. However, some mechanical obstructions to the normal action and development of the peripheral organs of speech were removed, and the faulty mental and physical speech habit subsequently corrected by training, or rather supplemented by correct habits, and this one time feeble-minded youth is now a shrewd and successful business man (with handsome offices on Chestnut Street, Philadelphia). If I had done nothing else, gentlemen, in all my career, but help to lift this boy out of the slough of his despond, I should feel that my professional life had not been in vain, and, if you will pardon the personal allusion, I will add that my experiences with this case were probably quite as valuable to myself as to the patient, for it taught me never to despair of being able to give aid to this unfortunate class of sufferers. Moreover the case cited is not an isolated one, but it is typical of a fairly large class. To the casual observer they appear to be upon the border line of hopeless imbecility, and even to experts, such as I have the honor of addressing to-day, their classification is exceedingly difficult and oftentimes impossible, except after a more or less extended course of experimental training. That there are certain mental and physical signs of degeneracy I grant you, but these are not always sure signs and they serve only as aids to the diagnosis.

A child's educability depends more than anything else upon his desire to be educated. The desire to speak is inherent in every normal person and if this desire is not gratified the desire to be educated will be diminished or blunted. What is the use of knowing things if you cannot communicate them? The child that will not be educated will retrograde and become feeble-minded. Being out of harmony with his environment his moral nature will become perverted. He will grow destructive and show other signs of degeneracy and imbecility. He does this because he does not understand his surroundings, and he is not himself understood by those about him. He elicits the sympathy of the household, and his every wish is anticipated and granted without even the asking. Under these circumstances, of course, education becomes an impossibility. There is no necessity for the child to talk, and there is no inducement for him to learn to know things. He is what we call a spoiled child, and he differs but little in his actions from the

imbecile. I have five such under my care at the present time, ranging from three to eight years of age. They all illustrate the difficulties of diagnosis and prognosis, and I shall, therefore, give you a brief synopsis of their history as taken from my notes.

No. 1. George H., three years of age, was referred to me by Dr. Wharton Sinkler. Does not talk at all. Was an eight months baby, instruments being used in delivery. Comes of a neurotic family, in which there is a history of consumption and insanity. Had two operations for the removal of adenoids. The lower jaw hangs far down. Has difficulty in chewing and swallowing, druels and seems to be unable to close his mouth. Very nervous and home training is a failure. There is evident paresis of the muscles of mastication, deglutition and articulation, and there is but little to indicate that the child is not an imbecile. (He has been under treatment for a year. He is gaining control of the paretic muscles, can keep his mouth closed for short periods of time, has ceased to druel and is learning to talk with fairly good articulation for the words that he knows).

No. 2. Sarah M., five years of age, does not understand or use spoken language. Can say, at dictation, a few words such as mamma, papa, baby, but never uses them voluntarily, and shows no appreciation whatever of their meaning. When spoken to she is perfectly indifferent and shows no sign of comprehension. Physically the patient is somewhat below par. She is well formed but undersized, weighing only three pounds at birth. Two older sisters weighed at birth only two pounds and six pounds respectively. In her first year she had measles, pneumonia and two attacks of whooping-cough, and in her fifth year, bronchitis and la grippe with acute unilateral otitis media. Takes cold easily and each attack is attended by more or less congestion in the region of the drum membranes. Did not walk until she was two and a half years of age. There is a history of consumption on both the father's and the mother's side. She shows some appreciation of music but no appreciation of words. She has an ugly disposition and when corrected she will fight and make disagreeable faces.

No. 3. Edward S., three years of age, normal birth and bottle fed. Had la grippe followed by an acute otitis media purulata. Large faucial and pharyngeal tonsils removed by Dr. Robert Milligan, Pittsburgh, Pa., before referring the case to me. Has drooping eyelids, a chicken breast and a weak heart. General health below par. Makes no attempt to talk, either spontaneously or at dictation, and shows no appreciation of the meaning of words. Strong evidences of at least partial deafness. Disposition bad, and home training a failure.

No. 4. Joseph D., eight years of age, has had muscular innervation since birth, which was premature, and was the result of a forceps delivery after the death of his mother in a uremic convulsion. It was not supposed that the child could live or even be born alive, but the desire of the family to have the baby baptized was the reason for the unusual delivery. Was a small and delicate baby, had whooping-cough and several convulsions during the first three years. Had peculiar gait and drueled.

No. 5. Robert H., five years of age, was bottle fed, weak and poorly nourished. Had frequent colds in the head and throat. Nostrils occluded by an irregularly shaped septum and adenoids, which called for operation. Had never talked and showed but little appreciation for the meaning of words. Had poor memory, was self-willed and did not take kindly to any form of instruction.

From the history of these five cases you will readily understand how difficult and even impossible it was to determine off-hand their exact mental status. These children were all suffering from arrested speech development and as a consequence there had also been either a corresponding arrest of mental development or an abnormal mental development, the outward signs of which differ but little from those of imbecility. In but one or two of these cases could I give an undoubted favorable prognosis. The prospects for speech development and mental development were by no means promising, because there were marked symptoms of a lack of cerebral integrity and there were no ready or direct means of eliminating this possibility.

The first four of the cases reported have been under treatment for more than a year and the results have been most satisfactory. It will be remembered that only one of the children made any attempt whatever to talk and his speech was a mere jargon, but now they are all talking freely and their speech is quite intelligible. Moreover they are gradually freeing themselves from the charge of feeble-mindedness or imbecility. They are no longer disagreeable and unruly, but on the contrary, they are of a genial disposition and mentally alert.

In the fifth case, although he appeared at first even more promising than the others, there has developed, in the course of his training, some evidence of faulty cerebration, such as a weak memory and weak powers of concentration. His hearing, as was the case in two of the others, is slightly defective and it was impossible to determine, without a preliminary course of training, whether or not the lack of speech development was due to this fact.

Three of them are partially deaf, and their improvement in speech has been due largely to the improvement in their hearing power and their mental improvement is due to the fact that they can now hear, understand and make themselves understood, by means of normal speech.

Aside from the direct mechanical means that were employed for the restoration of hearing their treatment has consisted entirely in the training of their faculties of speech, and this is the most effective and satisfactory course to pursue in all such cases.

Our whole system of education, beginning at the cradle, has been developed to meet the requirements of the average normal mind and it is wholly inadequate to the requirements of the abnormal or feeble mind. It must be remembered also that the mind is the product of a complex physical organism, and that speech itself is in part at least a product of this same organism. Even the so-called peripheral mechanisms of speech, in the

developmental period, are under the control of the cerebral mechanisms and the muscles employed in the articulation of speech sounds have been called the mental muscles. As Max Muller has said, "To think is to speak low and to speak is to think aloud". It follows, therefore, that the training of speech should occupy an important place in the curriculum of schools for the feeble-minded.

I am aware that not all the inmates of your training schools are susceptible to this sort of education, but I am convinced that those who are educable, even to a moderate degree, should have the benefit of a thorough trial in the line of vocal and speech development, and this work should be done by skilled specialists. It is not enough that your teachers have a smattering of elocution and know something of phonetics, but it is important that they should have some knowledge of physiology and psychology. They should be able to judge of the physical and mental capabilities of their pupils, and to understand their point of view.

DISCUSSION

(Some pupils of the Vineland Training School were presented to illustrate the speech training work of the school).

Dr. Makuen: No. 2. This child apparently did not know the meaning of the word "mamma" at five years of age, and rarely, if ever, spoke the word. She occasionally spoke "mamma" and "papa" and "boy" but no other words, and those three words seemed to have practically no meaning to her. When spoken to was perfectly indifferent. Showed no signs of comprehension.

I have given you the history of these cases to show you how difficult it is to make a diagnosis between a child who is actually deficient mentally, and one who is apparently only partly deficient mentally, because of the fact that they cannot talk and cannot express their thoughts or their feelings. This child, (No. 2) was a most unfavorable one. She was destructive and exceedingly disagreeable. If you asked her to do anything at all, no matter what it was, she would make a very disagreeable face, and put her tongue out, and if you were near enough she would strike you. On one occasion she struck at my assistant and broke her glasses, and injured her nose, and she would do the same thing with her mother. As it turned out, she is one of the brightest of all the children that I am describing here; in fact, an exceedingly bright child mentally, and her apparent feeble-mindedness, as things have turned out, was entirely due to the fact that she could not talk—she could not understand language, and she could not get into harmony with her surroundings. The reason that she could not talk was very plain after a little study. It was found that she could not hear words sufficiently well to comprehend their full meaning. She could hear music and enjoy it, but could not hear enough of language to understand it, or to learn it. She did not know her own name or her mother's name. The treatment consisted in the removal of

certain obstructions in the nose and pharynx, and in an attempt by mechanical means to improve her hearing power. She has not very good hearing power yet, but we have helped her by teaching her to understand what she could hear. That is, I take it, the important thing. Dr. Victor Urbantschitsch, of Vienna, was the first to suggest methods for teaching deaf children to hear. Just as you teach normal people to hear and understand music, so you may teach these children to hear and understand speech and language, and that is what I think we have done to a certain extent with this child. We have taught her the meaning of the sounds that she hears, and that has helped her to hear sounds that she never heard before. If your ear becomes defective for certain parts of speech, you will grow indifferent, and thus lose other parts of speech that you might otherwise be able to hear and understand. This was the condition of this child, and we taught her to understand what she did hear and that helped her to try to understand what she could only partially hear. In this way she learned to hear things that she never had heard before. The training of the ear is a very important thing in this work of speech development. We do not all hear alike. We do not hear our own voice as others hear it. The probabilities are that our own voice sounds better to us than to anybody else. Anyway, we taught this child to hear some, and although the conditions were such as I have described to you, she is now an entirely different child. She is genial and pleasant at home. She understands and talks a great deal, and she has given up entirely the pantomime and gesture language that she used before, asks for everything that she wants, and her speech is perfectly clear and intelligible. This has all been done within a year. You can imagine the satisfaction this gives her mother, who really began to despair of the child ever being able to talk. You can see by the photograph that she is really a bright child. I doubt if a year ago you could have held the child before a camera to have her photograph taken.

No. 3. This boy was an almost exact counterpart of the girl, but he was younger by two years, when I first saw him,—only three years old, and his family physician at home said to me that if I could teach this child to talk, I could teach anything to talk. He said he could not see that anything could be done with this child for the reason that he would not submit to discipline. It took three people to hold him in a chair for me to examine his mouth and throat, and the doctors at home had had many similar tussles with him. I am giving you a description of the child before treatment, and the photograph represents him after treatment. He does not look to be as bright as the little girl, but I think in a way he is. He has a very prominent breast bone and the sides of the thorax are depressed, thus interfering somewhat with the action of the heart and lungs. We are teaching him some breathing exercises to correct this deformity. He has been changed from an incorrigible to a perfectly normal child in his actions. We got him, I think, at the psychological moment. If he had gone for another year or two he would have been much more difficult to manage.

No. 4. This was a case of simple muscular insufficiency. Had never

talked, and his mentality was about on a par with the action of his muscles. He is much improved, has learned to talk, and his speech is perfectly intelligible. He is going to school, and doing well. No photograph.

No. 5. This child has been under treatment only three or four weeks, and although he appeared to be a brighter child than any of the others whose history I have given you, it has developed in the last two or three weeks of training that he is not as bright as the others. His memory is especially weak. This may be due to the fact that it has never been trained. It has never been necessary for him to remember things. Speech work is especially well adapted to the training and development of the faculty of memory. Here is a photograph of a child similar in this respect. You can get her to speak sentences as well as anyone, but you cannot get her to repeat them after a few minutes' interval. She is a good-looking girl, and I think you will agree with me in saying that she does not look to be feeble-minded, but she is the least favorable of the lot as regards prognosis.

Dr. Lincoln: I had understood that training of this description had been carried on very successfully in this institution, and I hoped something would be heard from the institution. Perhaps that is something already thought of. You know to what I refer. I think this institution will speak for itself.

Prof. Johnstone: We reported on the speech work that we were doing here three years ago, in the paper by Miss Morrison at that time. We have rather neglected our speech work in the last few years,—the work that Dr. Makuen is interested in, and that we hope Dr. Kenyon will do for us in the future, will probably give us a fresh start. We want to do a great deal more speech work than we have ever done before. In order to start the discussion of last night again I want to ask Dr. Makuen whether he thinks the special knowledge that he suggests the teacher must have, necessary before work is done,—before definite work is done in speech training. You say that the teacher should have some knowledge, which I presume is knowledge along the lines of causation. We have the children, here,—some of them. Shall we wait until our teacher has that knowledge? Shall we begin to-day and do what we know?

Dr. Makuen: Begin to-day.

Dr. Lincoln: May I put the question to the speaker whether these cases which he reported could not have been diagnosed properly unless they had been trained early, or would they necessarily have gone on to practical idiocy if something of this sort had not intervened? Were they of such appearance that the expert judge of such cases would have been deceived by them and have assigned them to a class of idiots and imbeciles?

Dr. Keating: That is the very point that we were discussing last night. I hope Dr. Makuen will discuss the question as fully as possible.

Miss Metcalf: I want to say right here that we never assign any of our children in that category. We think they are all improvable. No matter how little we have to work with, we still have to work with them. After hearing these wonderful reports of Dr. Makuen, I thought I would tell you about one

case that I worked with last year. There is one child who made no effort to talk at all, but after working with him a while I found that he could say "aboo" and then after three months more could say "aday" and then he would put the two words together. This same child was so unmanageable that he always had a string attached to him, now he has gotten so that the string is taken off, and he will come if you call him. Miss Bancroft thinks that everything helps the development of the child. She does not think that one single thing will ever bring about the results that many can.

Dr. Rogers: The child was really searching for the idea he was trying to articulate. I think if there is any one thing to be criticized more than another in work with these children, as with others, it is the attempt occasionally of teachers to make their pupils learn the sounds of words without any association of ideas with the words.

Miss Metcalf: We have the object lesson. The word is connected with the object with the very young children.

Dr. Keating: I am going to take exceptions, that articulation has been neglected in this school, and what belongs to this school belongs to all the schools, because I think there is no school which has done better work than this school. I am going to take exception to the statement that it has been neglected. I do not think that teaching articulation has been neglected. I think the association of the cause of these defects has been neglected. This is the work Dr. Makuen is doing. To find the cause of the defective speech centers, and that is the reason why Dr. Lincoln has said that he thought that these children were put in schools and had not been examined by a medical man; therefore is it not necessary that the expert shall be acquainted with the pathological, psychological and physiological conditions? Is it not necessary that the specialist shall look primarily into the conditions of these children?

Miss Metcalf: There is just one thing to say against that. I think sometimes if a law is laid down for a child it makes it hard for the teacher. If the teacher is told that there are these conditions—that it never could get but just so much, it makes almost a discouragement for the teacher to work against. I think perhaps her enthusiasm would be greater if she did not know these laws.

Dr. Mogridge: I am sure we are all exceedingly interested in the topic by Dr. Makuen. It brings to us something perhaps that we have not entirely neglected—some of it, at least. It shows possibilities beyond the things that we need every day in our institution life. The illustrations that the doctor has given us are indeed striking—they are to me exceedingly striking. The hope of a parent with such a child as the doctor has described very largely centers around speech, and it seems to me that there is nothing which gratifies the parents more than to be able to converse with their child. The child is brought to the institution with the prospect and hope of an education, and if we can by any means teach the child to talk we are accomplishing something for the child, and we are accomplishing something which gives unfailing pleasure to the parents. Outside of the pleasure to the parents if

it improves the mental condition of the child, it certainly is something that we in charge of institutions should take to heart, and so analyze our positions, and see if we are doing all that is possible for them. I believe that every means should be taken to educate every child we have so far as its powers will allow it to be educated. We thought, some of us, perhaps, that it was necessary for a child to have examination by a physician, an expert possibly,—to determine the physical condition of the child, as to whether these forms of training by the teacher would be successful, and whether it would be any use to make the attempt to train and then pass the child to the teacher. In other words, we write a prescription, and we pass it on to be compounded by the teacher. We should also know more of the pathological conditions underlying the feeble-minded conditions. I believe that is true. I believe we would be in better condition if we knew more of pathological conditions. There has not been a great deal done along those lines. It is a necessary part of our work, and has been rather neglected. I want to congratulate the doctor upon his paper, for it has said so much for us to think about—something that we need. We are liable to get into ruts, and we want to be shaken out of them once in a while. I think that so far as I have observed in private schools, they make specialties of certain things. The teaching of speech is one of their specialties. From the reports that I can gather, they have been successful in the improvement of speech of their children, much more so than we have at the Glenwood Institution. We have improved in speech, it is true, but not to the extent, I gather from the small private schools, where they make a greater effort to teach the children to speak.

Miss Metcalf: To prove what I have said, there is a boy at our school who formerly had no voice. Since he made that law for the child, the boy has a voice,—he says several words. It might have discouraged the teacher if she had admitted that fact, and not tried to work any more.

Dr. Kenyon: Dr. Makuen's paper has interested me because of a fact that you do not possess. I have had the advantage of seeing some of Dr. Makuen's cases at the very time he began work upon them. It has interested me exceedingly to know that these children have turned out to be able to approach to normality in their intellects. One of them in particular seemed to me at the time (a year ago) to be practically helpless in his mentality, so that the paper has been of exceeding interest to me in enabling me to follow these cases. There is one thought that I am inclined to express. The specialist in the medical profession continually has it thrown at him that he exaggerates the conditions met with in his own field. He is even accused sometimes of making disease within his own field. Now, it occurs to me to wonder whether the same thing might not be justly said of you people who are experts with the feeble-minded. The line drawn between the normal child and the defective child is not a definite one. The two conditions show a hazy ground between them. Might it not be just, perhaps, to say to you that sometimes you even may *make* defective children. Your tendency is to consider a particular child defective rather than normal.

Now, is it not possible that Dr. Makuen is helping us to draw a more definite line in some instances between the normal child and the abnormal child, so that we may turn some of these children, not toward the abnormal but in the other direction toward the normal. If we succeed in causing a child to speak, may we not in some instances lead that child rightly into the normal world instead of consigning him for life into such an institution as this? So it seems to me perhaps it is just as well to consider these things very seriously,—to wonder whether we are not too much inclined to seek abnormality rather than normality. Let us in these possible cases search for the normal, and search for it hard, and if possible, turn some of these children in the right direction instead of the wrong direction. Applause.

Prof. Johnstone: I think it is true that in some of these institutions we are so afraid of sending out defectives who will be the means of increasing the race of defectives that we think oftener about keeping them in the institutions than about letting out the few who perhaps belong out in the world, after we have found out what the trouble is. Dr. Kenyon's work has quite amazed me. Dr. Makuen's paper has opened up the possibilities of the fact of our having in our own institutions children who are only backward, who may be set free. Perhaps it does not stop at speech. Perhaps we had better open our eyes carefully in other directions.

Dr. Rogers: I think we are under special obligations to Dr. Makuen for this paper. I think we are very apt to overlook the special relation between mental development and lack of mental development. I think it is a rare treat that we have had in this paper. I just wish to say to Dr. Kenyon that the suggestion that was thrown out by him has been practically thrown out before, so that while it is very important, it is not at all new. I have thought that we may be doing just what Dr. Kenyon suggests, and I think it may be true in many instances. I will simply say this: that the consideration of a question of that kind depends so much upon the particular social conditions of the community where you are at work, and the purpose for which the work in any given cause is organized. Some of us, in the management of the large institutions, have so much to do with the particular cases that should never go out, and that any community will agree should never go out, and yet concerning whom there is a constant appeal to force out, consequently, we propose methods that in our estimations are right, and yet which some of those who are engaged in the private institutions do not appreciate the necessity of. We have in our large institutions in many cases, I know, in the west, feeble-minded degenerates and moral imbeciles that it is almost impossible for us to keep under guidance, and yet in many cases they are the particular ones that the families are trying continually to get out of the guardianship of the institution.

Dr. Johnson: The paper has certainly been of very great value to me, and it seems to me that no subject could have been brought up here at this institution that would have been of more value to us than what has been discussed in this very paper. As has been

suggested by Dr. Mogridge and others, when a parent brings a child to our institution, that cannot talk, the very first thought in the mind of that parent is: "Cannot that child be taught to talk?" and it would seem to me, from the experience that I have had, that if it could only be taught to talk, that that would be sufficient reason for the child being brought there. I certainly never have had anything brought to my mind such as has been presented in this paper. I don't know that any one else has. I don't think that any institution has ever experienced any such results as the doctor has presented in this paper. I, for one, am very thankful for what he has given us.

Miss Jacobs: I would like to say that I think the children that are taken and trained, beginning at the age of some younger ones, would not class with normal children were they allowed to go on. We don't get the oportunity to train the children when the best work could be done.

Dr. Makuen: I sometimes think that I may be too enthusiastic on this subject of speech training, but my position is like that of Mr. Beecher, when he was accused of telling too many funny stories in the pulpit. He said: "If you only knew how many funny stories I suppress in the pulpit you would not blame me for those I tell". Now, if you only knew how the importance of this subject appeals to me, you would not criticise me, I am sure, for making these positive statements about it. I think the great fault of our teachers is that they do not appreciate how much may be done in the training of speech. They grow weary in well-doing, and give up the task just when the best and greatest results are at hand. I myself am surprised every day at the results we get by persistent effort and by persistent practice in this line of work. Now as to the relation of the physician to the teacher, and as to their work. In the first place your physician should himself be a teacher if he would successfuly direct a teacher in this work and a bright teacher will soon come to know almost as much about it as the physician. I have two assistants, who need but little direction because they know nearly as much about the work as I do. The average doctor cannot make a diagnosis in these cases as well as a first-class teacher because he has not had as much experience in the work of training children. I make a plea, however, for a greater efficiency in the teacher. She should study physiology, psychology, and pathology, and their relation to the organs of speech. She should know human nature and especially the child nature. She should know the possibilities of improvement in each case, and knowing this she will work harder to attain the results. The teacher must understand that the child does not know the correct sounds even after he is enabled to make them. The child with the very worst kind of a jargon thinks he is talking as well as you are. Some of the worst cases of articulation think they are using the normal speech or the normal voice. Take as an illustration one using the falsetto voice. He always thinks he is using the normal chest tones. The teacher must keep this fact in mind and remember that the whole subject is

new to these patients. Dr. Keating brought up the question as to the possibilities of making a diagnosis. I confess that I was utterly unable to give the parents any hope in two of the cases that I have reported: the girl five years old and the small boy, four years old. The family physicians gave no encouragement whatever about their improvement. I don't see how it would be possible for anybody to make an off-hand diagnosis in these cases, or to give even a favorable prognosis. If they had not had special training they never would have even approximated the appearance of normal children. I believe in manual training and physical training of all kinds but my plea is that we do not make quite enough of special speech training because it, more than anything else, appeals to the mentality of the child. I hold that the training of the hands, etc., does not make so much for mental development as the training of the speech. When you are helping a child to adjust the organs of speech for the formation of correct sounds you are getting nearer to the inner workings of his mind than you can in any other way, and the child develops accordingly. I don't know whether I have answered all of the questions, but if there are any other points, I shall be glad to give you my opinion upon them.

Miss Minor: What is the possibility of developing the gruff voice of the Mongolians?

Dr. Makuen: I think that in all this matter of speech training the vocal element should be made very conspicuous. It is vocal development that is required in many instances. The gruff voice that you speak of is due to a faulty action of the vocal organs and it is quite possible to improve this condition in children of sufficient intelligence to give you their co-operation. Vocal training is the treatment for these cases.

Miss Minor: I have never seen a Mongolian child yet that had a voice that approached the normal voice.

Dr. Makuen: The trouble is often in the use of the diaphragm and abdominal muscles. You can train the voice as well as train the speech. Of course it is more difficult in the feeble-minded child than it would be in the normal person, but if you can get his co-operation even to a slight extent, much improvement may be expected.

Dr. Lincoln: Have you anything to say, about an age limit for teaching, beyond which it is of no use to teach?

Dr. Makuen: That is an interesting and important question. As a rule I should say the younger the better. One of my most successful cases reported here is not yet four years old. There is a great advantage in getting them away from their home environment. They are what they are largely because of bad management at home. They are petted and spoiled, but not trained. You cannot always blame the mothers, for their sympathy goes out to the defective child in an unusual way. From three to eight years old is about the time you should get the best results, although they do develop later. This first boy I mentioned was nineteen years of age before I began with him at all, and his doctor, who is now dead, said that he

would never talk because he had not sufficient mental capacity to talk. That boy simply had a defective tongue, and I loosened it and taught him to use it, and now he is an exceedingly clever man.

Dr. Keating: There is a wonderful amount of ignorance on this subject. You want to get your medical part of it up to the standard, and let your medical part be in such a position that they can direct your teachers intelligently. I don't think any teacher ought to be hampered with any rules, but the physician has the right and ought to do so, of directing his school, especially those who have any defectives in speech.

Dr. Makuen: The trouble is that medical men, as a rule, do not know enough about the subject to direct the teachers. I think that more medical men and medical women especially should take up this line of work and fit themselves to be teachers and then they would be in a better position to direct others.

Dr. Kenyon: Take a feeble-minded institution which is isolated from a large city so that it is impossible to get expert knowledge in this direction. Would you think it very desirable that that insititution should have a teacher trained from your standpoint to take care of these speech cases? Would that teacher do good work by herself, entirely away from expert direction?

Dr. Makuen: Yes, I think so, if she were properly trained, though she would probably soon lose interest in the work unless she had the stimulating influence of one whose interest centers in the broad, underlying principles.

Dr. Kenyon: The practical question which feeble-minded institutions should put to themselves seems to be: Is it a practical matter for an institution although, perhaps, unable to command expert medical oversight regarding defects of speech, to do effective work through a special teacher?

Dr. Makuen: By all means, yes! but the special teacher should have a thorough knowledge of the subject and be interested in it from every point of view. It is a mistake to put a young woman in charge of a department like this who simply knows a little elocution. Such an one may know enough to teach a normal person, but it takes special skill to teach an abnormal person.

Dr. Keating: Do you think that this boy, nineteen years old, could have maintained the intelligence and the understanding that he now has in the community, if a physician had not stepped in and made the corrections and then put him in the hands of a competent teacher to develop afterwards?

Dr. Makuen: If he was ever going to do anything, he would have begun, at least, to show some evidences of doing it. The boy was debarred, by reason of his defect, from any communication with his fellows. He lived on a small farm near Darby and he was absolutely as useless, beyond doing a certain amount of menial work on the farm, as one of these children.

Prof. Johnstone: Did you take this boy as a physician, or as a teacher, or as a combination of both?

Dr. Makuen: As a combination of both. I would rather give up my title as a physician than as a teacher.

Dr. Keating: If you had not had your medical knowledge, if you had discovered that certain muscles in that boy's throat connecting with his tongue, were abnormal, would you have known what to do?

Dr. Makuen: No! It was the operation that opened the way for the work of the teacher.

Dr. Keating: Don't you direct your teachers? Where did the knowledge that you say they have, come from?

Dr. Makuen: They work entirely under my direction and carry out my views as far as possible. The teacher needs the stimulus that comes from one who sees the general principles underlying the work that she is trying to do.

Prof. Johnstone: Does she need the stimulus of the scientist, or is it the physician?

Dr. Makuen: The physician should be a scientist.

Miss McLean: In a large institution, with an unlimited number of children who require speech training, and one articulation teacher, who has made a specialty of that work, how would you do the greatest amount of work?

Dr. Makuen: I think I would have the teacher take them in sections, at different times. I should say the classes ought not to number more than from three to six. The children require some individual training, and I would give each one two or three minutes at short intervals. My assistant has a little back room where she has anywhere from three to ten patients. The plan that I advise is to teach them all to do certain easy things, and then have them do these things in concert, and afterward encourage them to do them individually. I should think that that would be the best plan in a large school.

Dr. Rogers; You think on general principles that the most work could be done with the younger children?

Dr. Makuen: Yes! The large girl of whom I spoke did not begin early enough. If she had had special speech training when she was younger, I think she would have been a much brighter child. Here is a child (Ada M). who does not look like a feeble-minded child. I don't know how long she has been in this school, but I see no reason why she should not be taught to talk now. There is a faulty action of the tongue,—she is not able to put it up, but whether this is due to a structural condition of the tongue muscles, or whether it is due to the faulty nerve action, I don't know. (History of Ada M. read by Dr. Kenyon). Now, a child who can do these things, can write her name, etc., can learn to talk, unless there is some trouble in the motor centers of speech, and it is perfectly reasonable to me to suppose that with the proper methods of training, that you might straighten out whatever kinks there might be there. (Child repeats vowel sounds after Dr. Kenyon).

Dr. Kenyon: She does not always control her chest so that the expulsion of air necessary for the production of speech is sometimes lacking.

Dr. Makuen: This child tries to do what the doctor asks. In the

children whom I have spoken of, not one of them would do what I asked them to do. If Dr. Kenyon had that child for a year, he would make her talk. I don't know what she would say, but she looks as if she is not altogether mentally deficient; certainly, she is not in some respects. She has the power of attention, and she has the power of imitation, and the desire to do things, and these are the requisites for successful training.

INSANITY AT PUBERTY.*

CHARLES W. BURR, M. D.

Professor of Mental Diseases, University of Pennsylvania, Philadelphia.

THOUGH pubertal insanity is rare it is important not only because many patients die and others are left permanently demented or imbecile, but also because in many of those who seemingly recover the attack is a warning of liability to mental breakdown later in life. Since the true cause of insanity is largely within the individual, is part and parcel of his mental makeup, depends relatively little on the mere accidents of his external life, his environment, and much on his ancestral history, and since the exciting causes merely give opportunity for insanity to arise, any mental abnormality occurring during the developmental period is of importance, however trifling it may seem in itself, as indicating mental instability or a tendency toward deviation from the normal, which under proper education may be corrected, but which if left uncorrected will certainly lead to disaster in the future.

Mental disease appearing in childhood, at puberty, during adolescence, or indeed at any period of life, indicates that the patient possesses less than the normal power of resistance to stress, whether it be the mere ordinary wear and tear of life, the exhaustion of bodily disease, mycotic infection, or vicious habits. Persistent recurring somnambulism, outbursts of causeless violent anger, frequent night horrors and day horrors in children are all signs of nervous and mental instability which can only be corrected by the greatest care and wisdom in education. Since puberty is the first and greatest period of mental and emotional stress it is not remarkable that then insanity greatly increases in frequency. At this time also it begins more nearly to resemble the clinical picture seen in the adult. In childhood its manifestations are simpler than in the adult because the mental and emotional life is simpler. The mental life of the insane is based on perverted reminiscences of past experience and is rich or barren, simple or complex, as the previous life was full or empty. Complete dementia alone pulls down all ages and all intelligences to the dead equality of mindlessness. The insane child may suffer from maniacal outbursts, emotional or intellectual depression, hallucinations, transitory delusions,

obsessions and imperative impulses, and he may, of course from the violence of the disease, be left demented or imbecile, but he cannot present the rich growth of delusions shown by his elder brother. He who has never heard of kings can not have the delusion that he is a king, and only those who have had strongly impressed upon them the dogma of the unpardonable sin can believe they have committed it. He alone can think he is persecuted who has learned something of the real persecutions that exist in the world. The child cannot show the curious perversions of logic of the adult paranoiac because logic itself is only just beginning to appear in him. The adult chronic reasoning maniac often possesses rich wit, perverted yet real. The boy shows only an impish mischievousness. As gradually, at puberty and through adolescence, the emotions broaden and deepen, sexual feeling appears, pure egotism normally becomes less marked and intellectual judgment comes into being, insanity conforms more and more to the adult type.

The study of psychiatry has been much hindered in its progress by the fact that we arbitrarily confine insanity within very narrow limits and pay but little attention to mental symptoms outside its boundaries or too often content ourselves by explaining them on the ground of viciousness. Much seeming viciousness is real disease. Psychiatry needs for its material for study not only the inmates of asylums and hospitals, but also the world at large, both old and young, well and ill. Wise schoolmasters know more about the normal and abnormal development of children than many physicians and could throw much light on obscure problems of mental disease. Unfortunately many schoolmasters are not wise, but foolish, mere hearers of lessons and correctors of exercises.

The types of insanity occurring at puberty and adolescence are as numerous as the types of boys and girls. Everyone is probably a little unbalanced at this time. This is physiologic. It is associated with sexual development and dependent on it. The healthy boy of healthy stock, even though his environment may be far from the best, passes through this period successfully and finally reaches stable equilibrium, the other now begins to show signs of abnormal development which later will grow into some distinct form of insanity. Probably the most common type, though seldom seen by alienists, and but little studied because its victims rarely get into asylums, or, indeed, receive medical attention at all, is a slowly oncoming weakening of the mind without delusions or hallucinations, a mere gradually increasing disability for mental work, usually stopping far short of complete dementia. Every schoolmaster knows the type. A boy who before puberty was bright, learned quickly and was interested in all things which make up a boy's world, begins to be inattentive, learns less and less readily, loses all ambition, no longer wishes to do things, ceases to have interest in play, becomes asocial and physically inert. He may present no moral abnormality, indeed, frequently his moral nature is of the best. The difficulty is entirely intellectual. His final state is that of mild dementia coming on slowly, not the result of any acute infectious disease, nor of

masturbation, but caused by an inherent, congenital inability of the organ of mind to withstand stress. He is born with potential power enough to develop up to puberty or the earlier years of adolescence and then dissolution begins. In mild cases dementia is too severe a word, there is only slight feeble-mindedness, and the boy who gave promise of being a leader or at least a successful man, becomes fit to take only a very subordinate place in the world's army of workers. In another type there is added to the mental defect, or, indeed, overshadows it, gross moral aberration. The child who was average up to puberty begins then to have outbursts of causeless anger, to be cruel, to forget all he ever learned of his duties to others, to chafe and fret under restraint, to lose self-control, to be a creature of impulse and passion and a slave of bad habits. He may in power of reasoning be equal to or even above the average. Many of the criminal class are of this type. They are rarely recognized as insane in their earlier years, but if they escape being hanged or the diseases which nature uses to kill off the unfit they eventually frequently die in asylums with chronic mania or some secondary dementia.

Another type, which has its beginning at puberty or early adolescence, though its full development is not reached till adult life, is the so-called original paranoia. There is no doubt that a clinical picture indistinguishable from original paranoia may appear in people whose childhood and youth showed no signs of mental disease, but frequently it is merely the natural development of a nature that from its conception was twisted, warped and abnormal. The boy, normal before puberty, then begins to be eccentric. He becomes vain of his ability, thinks he is of more importance than his parents and relatives, and that he is not treated with proper consideration. Sometimes he is a great student of many things, reading much and learning little, though, being plausible, he may deceive others as he deceives himself into believing that there is a great future before him. Egotism grows to such proportions that finally he believes he owes no duty to the world but everyone owes duty to him. All who live with him must give way to him. He must always have his way and for the sake of peace parents and brothers and sisters give it him. He has much religiosity but no religion. He day-dreams much of sexual matters, either with a sickly sentimentality or bestiality, or he may mix the two. He may have ideas of great inventions that never work. Soon or late he turns against the world that will not bother itself about him and being sure of his real greatness explains it by the delusion that people are persecuting him therefore. He thinks he must be great or people would not abuse him. They are envious of him. In paranoia egotism reaches its maximum. It may be acquired but more often is congenital. Paranoiacs are as a rule like poets, born, not made.

In the above described types only the prodromal symptoms, if one may call them so, appear at puberty. the disease not reaching its height until adult life. Acute insanity also occurs at puberty, and, though rare, is sufficiently frequent to be of interest. It may arise without any discoverable external cause, or may follow an acute infectious fever (especially typhoid),

fright or excessive masturbation. The last, however, is often a sign of degeneration rather than a cause of insanity. The following is a typical case of acute mania, the exciting cause of which I could not discover:

Case 1.—The patient was a boy thirteen years old. His mother stated that he had always been healthy. He was a cash boy in one of the large stores and had worked hard. He was a reader of dime novels and a cigarette smoker, but had shown no sign of sexual feeling. He was brought to the Philadelphia Hospital in March, 1903. One week before admission he suddenly became violent. It was stated that previously he had shown no evidence of ill health, but his people are not intelligent and certainly are unobservant, and it is very possible that prodromal symptoms were overlooked. However that may be, he became suddenly violent, cursed and swore, complained of pain in the head, slept little and raved all the time. When I examined him I found a thin, pale-faced, frightened-looking boy with widely dilated pupils, dry skin, without fever, and with a strong pulse. The knee-jerks were large. He was very dramatic, gesticulating and pointing with his fingers. He talked unceasingly of Indians, burglars and murderers. He paid only momentary attention to questions asked him, sometimes beginning an answer but soon wandering off; more frequently he kept up his raving. He lived in his own world, and his train of thought was not influenced in any way by the things going on around him. He did not, as is usual, take up words or sounds or sights as a basis for his train of thought. He would eat food set before him, talking all the time, but never asked for it. At first he slept very badly, but later fairly well. He paid no attention to his bladder and bowels. His emotional state varied between elation and fright, but there was never mere depression. After a few weeks he began to improve. He would answer short questions, talked less and less about the Indians, burglars and murderers. He saw and paid more attention to what was going on around him. He did not pass through a stage of depression, but went directly but slowly from the period of excitement to that of normal life. In about three months he regained health.

Case 2.—Another boy, also thirteen years old, is probably best classified as a case of acute confusional insanity. He had arrived in this country from Russia only a short time before his admission to the hospital, having made the journey alone. Whether his illness was the result of homesickness and fright at being alone so long or whether there was some mycotic infection is impossible to determine. We obtained only a meager history of the onset of his illness. It appears that on his arrival in Philadelphia from New York he appeared frightened and excited. He understood little that was said to him and talked incoherently. At times he would sing. He was somewhat violent at times, but could always be controlled. He would not eat. On admission to the detention ward he was highly excited, continually shouting, singing, whistling. By the time he was transferred to the insane department, a week later, he had become much quieter. Apparently there had been some slight improvement in his mental condition. Though excited and at times noisy, and though he had still to be fed with a stomach tube,

his attention could be held long enough for him to answer a question. He remembered that he had been seasick on the journey across the ocean, but did not remember being in his uncle's house. He did not remember being brought to the hospital. Indeed, his mind was entirely blank concerning everything from the time of his arrival in New York until he found himself in the hospital a couple of days before the examination. (His relatives stated positively that he seemed entirely well on his arrival at New York, so it would seem that his illness obliterated all memory or at least power of recollection of events that had happened during some days previous to the onset of his illness.) It must not be thought that he made the statements above given consecutively and quietly in answer to questions. On the contrary, he was very confused and excited during the whole time, and only now and then could hold himself in enough to talk coherently for a minute or two. He improved a little for several days and began to sleep well though he still had to be fed. Very soon, however, he became excited again, and later stuporous and very weak so that he could not stand. Finally, four weeks after the onset of his illness and while still stuporous, he had a violent nose-bleed and died in a few minutes. For several days before death his gums were slightly swollen and oozed a little blood. His urine was free from albumin, sugar or casts. It was acid and of a high specific gravity (1034). A blood examination a week before death revealed 5,270,000 erythrocytes, 14,000 leucocytes and 72 per cent. hemoglobin. At necropsy the brain was much congested throughout. There was marked congestion of the trachea and bronchi. The lungs were congested and in places carnified. There were some old slight pleuritic adhesions. The stomach contained about six ounces of milk and eggs, but no blood. There were a few pinhead-sized submucous gastric hemorrhages. The thyroid gland, kidneys and intestines were normal. I confess I am entirely ignorant of the exciting cause of his illness. Whether it was the mental shock resulting from a young boy traveling several thousand miles and suffering a large part of the time from seasickness or whether what he called seasickness may have been some acute infectious fever is, of course, indeterminable. The pathologic condition found in his lungs arose, I am sure, after the onset of his mental symptoms.

The influence of mental shock in causing insanity in children is shown by the following case.

Case 3.—The patient was a schoolgirl fourteen years old. She had always been a nervous delicate child, but was bright, active and full of energy. One day she was almost run over by a carriage. She was not injured physically, but was much frightened. She ran home and fell in collapse in the hall. She was kept in bed two weeks, during which time she was in a state of constant terror. She then improved a little and was allowed to get out of bed, but when I saw her, about five months later, she was still ill. She was afraid to be left alone or in the dark. She had frequent attacks of weeping and was greatly depressed, sitting for hours saying nothing and answering questions only in monosyllables. Whereas

previously she had been fond of reading she now cared nothing for books and could not be taught anything. She never played and never smiled. Her expression was vacant. She knew perfectly well where she was and who she was, had no delusions or hallucinations and answered questions intelligently, but she was listless and inert and took no interest in anything. Her memory for recent and remote events was good. Her appetite was poor, her sleep troubled. Physically she was pale and thin, with cold bluish-red hands and dilated pupils. The deep reflexes were exaggerated. I advised that she should be sent to the country, fed on milk, eggs and vegetables, made to take outdoor exercise and given long hours of rest. What the result was I do not know because she dropped out of my sight.

The acute infectious fevers, chorea and acute articular rheumatism are responsible for a large number of the cases of mental disease occurring during childhood, puberty, and adolescence. Whether mycotic infection or the exhaustion consequent to disease is the direct cause is still undetermined. Probably both act. Certainly the mental symptoms that occur early in the course of fever are directly caused, sometimes by the fever itself, sometimes by bacterial poisoning. In the later cases beginning during convalescence mere exhaustion and malnutrition of the brain is a sufficient cause. Post-febrile insanity is so infrequent that it is impossible to state with any certainty which one of the infectious fevers is most liable to be followed by it. Scarlet fever, measles, and typhoid fever seem to be the most important. In typhoid fever delirium is really a symptom of the disease. Almost no case of any severity escapes it. The more dangerous cases are those in which insanity begins during convalescence. Sometimes the only symptoms are permanent weakmindedness or marked imbecility. The amount of mental defect left varies greatly. There may be only slight obtunding of the faculties, a boy previously bright becoming dull and ordinary, or imbecility may be so great as to need permanent institutional treatment. On the other hand the patient may pass through an attack of mania, melancholia, or stuporous insanity and recover or be left with more or less dementia.

Since Kraepelin's extensive and exhaustive studies, much has been written on the subject of dementia precox. It has become a very inclusive title, taking in almost all types of insanity occurring during puberty and adolescence and not a little of the insanity of adult life. It surely is not a distinct and definite disease as are paresis and typhoid fever, but serves a purpose in grouping together certain cases more or less similar in clinical aspect. The following case may be classed here as conveniently as under any of the heads under which insanity accompanied by stupor has been put.

Case 4.—The patient is a white, native American boy, fourteen years old, who was admitted to the Philadelphia Hospital in September, 1904. His mother stated that in July she noticed that he was acting strangely. He would take off his clothes and wander about the house. He slept badly and passed a large part of the night walking aimlessly up and down stairs. Soon he became taciturn and ate but little. A few days before admission to the hospital he became excited, accused his mother of poisoning him and

refused to eat. When he was brought to the hospital he was well nourished. He talked little, saying he was sick and had had pains all over his body for about a week. He said nothing about having been poisoned. He was stubborn and rarely answered a question. He would take food, but never asked for it. He lay quietly in bed most of the time, but sometimes wept and whimpered, for which he gave no explanation. His pupils were widely dilated. The knee-jerks were absent. The eye grounds were normal. In November he suddenly became stuporous. He lay perfectly quiet, paying no attention to anything, passed urine and feces in bed, made no attempt to swallow food put to his mouth, and showed no sign of sensibility except that if a leg or arm were sharply pinched he would withdraw it. He obeyed no commands, however simple. Talking to him caused, as I have frequently seen in other patients, great dilatation of the pupils. The knees and Achilles jerks were absent. The plantar jerk was normal and the abdominal reflexes present. There was no rigidity of the spine, but any attempt to open his mouth to feed him caused him to hold it tightly shut. Sometimes he was cataleptic in slight degree, but most of the time a leg or arm raised in the air fell as soon as support was removed. He rapidly lost flesh and color and became much emaciated. His hands became clammy and blue. He remained in this condition of apparent stupor until January 3, when for the first time he began to chew food put into his mouth. January 28 he began to talk, saying he was hungry, and asked for milk and a banana. Next day when another boy patient asked him how he was he swore roundly. As yet he would not answer a question or obey a command. Almost a week before beginning to speak his hands resumed their natural color and he put on a little flesh. By March 12 he began to talk more, would feed himself, would obey commands and answer questions and ten days later he was perfectly conscious, was interested in things around him, talked like a normal boy and ate well. He had gained much weight and color, but was so weak that he could not stand alone. He remembered and related to us many things that happened in the ward during his apparent stupor. When asked why he had refused to talk for so long he said he didn't know. He guessed it hurt him. He rapidly improved in strength and today (April 22) is a fair example of the average street boy—bright, tricky, and with none too much moral sense.

The most interesting symptom in this case was the stupor lasting about three months. Stupor is an inappropriate name for the condition, but its use has become so universal that it probably would now be impossible to displace it. Stupor should mean a condition of stupidity with great but not complete obscuration of consciousness. This boy's condition was not loss of consciousness, but absence of evidence of its presence. As a matter of fact, he was conscious all the time, as is proved by the fact that he had a clear remembrance of what occurred while he was apparently unconscious. His condition was probably caused by aboulia, a paralysis of the will, an inability to will to do anything. In some patients refusal to talk, to eat and obey commands is surely dependent on a delusion that they cannot or must

not eat. Sometimes, indeed, after recovery patients will so explain the condition, but a patient's reason for his previous conduct is not always to be accepted as accurate. As a rule the apparent stupor passes off suddenly after sleep, but in this boy the return of normal mental function was slow, and occupied many days. Sometimes the condition lasts many months as in a young man at the Philadelphia General Hospital, who has been in apparent stupor for two years. Sometimes also there may be long periods of stupor alternating with periods of more or less normal consciousness.

When cases of general paralysis were first reported as beginning at puberty and adolescence much skepticism was expressed as to their genuineness. Today, however, it seems proved that though very rare, paresis may occur at an early period in a child whose parents are syphilitic. The influence of other chronic organic brain diseases in causing insanity in children and youths has been studied but little.

Case 5.—One patient I have seen could be classed roughly as an imbecile but I believe his illness has been caused by some slowly oncoming organic brain disease. He is now sixteen years old and his present illness dates from his twelfth year. He was healthy at birth. He was breast fed for eleven months. He began to walk and to talk at the proper time and developed normally until the twelfth year. Then he began to suffer from headache. He was taken from school a year later on account of his health. He began to fail mentally and several years later it was noticed that he was awkward in the right leg in walking. He continued to complain of headache, became mentally weaker and hard to manage. When I examined him he showed some spastic palsy of the right leg with flat foot, abortive ankle clonus on the right side, and increased knee-jerks on both sides. He had no other sign of physical disease except some slight post-nasal adenoids which were later removed without influencing his mental state. The eye grounds and visual fields were normal and, permit me to say, for the sake of those who believe refractive or ocular muscular disturbances cause all ills, that two excellent oculists could find no excuse for treating him. He was rather short for his age but of good weight and color. Mentally he was very deficient. He could scarcely read. He showed no evidence of sexual feeling. He had no boy friends, indeed scarcely any acquaintances, because he always quarreled with them. He had frequent attacks of anger but was never sullen. His memory for remote events was good but for recent occurrences very poor. Some things he had done two days before he had no remembrance of. He was never cruel. He was clean in his person but careless in dress. He was entirely self-centered and showed no affection for his parents. He was physically lazy and took no interest in out-door sports. In short he is to-day rather a high-grade imbecile but I think the cause is some unusual and obscure form of organic brain disease. The whole course of his case has been slow and did not result from any acute infectious fever or indeed acute disease of any kind. There is no history of parental syphilis and he does not show any physical sign of it and bore anti-specific treatment only well enough to make that test of no value.

There is not time to discuss the occurrence of acute insanity in imbeciles. It is not infrequent and may come on at any age, but most usually at puberty or during adolescence. One of the most important of the mental diseases is hysteria. It is customary to arbitrarily separate it from insanity or to speak of hysteria and hysterical insanity as if they were two distinct things. As a matter of fact hysteria is a disease of the organ of mind quite as much as mania. In children it usually manifests itself by convulsions or by those curious affections of the larger joints. In my own experience I have more than once found it very difficult to decide in youths whether a given case was one of hysteria or the stuporous insanity of adolescence. In the rare cases of insanity which are seen at the very beginning when the patient will submit to careful ocular examination the character of the fields of vision is of great aid in making a diagnosis. In dementia precox the field of vision is normal or else almost normal at the beginning of the examination and rapidly grows smaller as the examination continues. There is never complete reversal of the color field and tubular vision is never present. In hysteria contraction of the fields, if present at all, shows itself at the beginning of the examination and, of course, reversal of the fields is common and tubular visions not very rare. Hysteria is not followed by dementia and, indeed, we may say that in youths the attack is practically always recovered from. The importance of hysteria at puberty is that it is a sign of danger to come later in life.

The proper treatment of insanity at puberty is prevention, in other words, education. When we pay more attention to teaching self-control and clean morals, when those whom Nature intended to lead a quiet life do not try to lead the strenuous life, and when parents get wisdom insanity will greatly decrease. But these things are in the very distant future.

SPECIAL CLASSES FOR DEFECTIVES IN REFORM SCHOOLS.*

BY ARTHUR C. JELLY, M. D., BOSTON, MASS.

WE are naturally proud of our public schools, and those who are familiar with the work of the so-called "industrial or reform schools" are equally proud of the system and its results there. I need not say to this audience that, with our most successful results in education of every sort, we bring to light also many striking failures. It appears to the duty of the directors of all schools to investigate carefully the failures which are observed, and the conditions which seem to determine them. Only in this way, will it be possible to prevent similar unfortunate results in the future. The course of study in the public school is undoubtedly well suited to the needs of the *average* child. If all children were able to attain the average standard, there would be no need of the sort of work in which I have been for some time engaged,—I mean the attempt to measure the mental capacity of the exceptional child.

*Read at Second National Conference on the Education of Backward, Truant and Delinquent Children, Chicago, July 8th., 1905.

In certain parts of Europe and in a few cities in the United States considerable attention has been paid to the school work of mentally-deficient children. Special classes for the development of such children were instituted in Boston in 1898. Pupils for the first three classes were selected by the teachers, who were to take charge of them. It was only necessary to inspect these earlier classes to be convinced that the children were too defective to profit very much by any public school instruction. The superintendent soon became convinced that medical judgment was desirable in connection with the selection of cases for future classes, as well as for the transfer from the public schools to the institution at Waverley of those cases that required custodial care more than school work. In March, 1902, I was requested to examine the cases and to take charge of the classes. In a short time four other classes were formed. On account of the difficulty of securing money from the school appropriation for the maintenance of this work, we have not been able to form any new classes for over two years; but we have been able to work out a system of management which promises to give large results as soon as a sufficient appropriation can be obtained for extending the work. At this point, I wish to add a word of caution as to what the classes may be expected to accomplish. As some of you may know, the claim has been extensively made that by this method of training it would be possible to get on successfully without providing institutions for the feeble-minded. On the contrary, experience has clearly shown everywhere, so far as I know, that *the only thoroughly successful classes will be those which are managed in harmony with some well-regulated institution, each doing its share in a comprehensive work.*

As I have said, these public school classes have been intended to develop into activity any latent capacity which backward or defective children may have. I am convinced that schools of the sort which you represent here, would become more efficient if a special class could be organized in each school for the exact determination of the mental capacity of the children who fail to attain the average standard. Moreover, there are other exceptional children, who do *not appear exceptionally dull* in school or out-side, and who often do not attract notice in the public schools, until their impulsive acts or lack of self-control or improperly applied will-power bring them before the authorities in a variety of ways, with which you are more familiar than I am. In the reform schools, so far as I know, these children do not yet receive adequate attention. Sometimes a failure to accomplish a satisfactory reform results from a lack of mental capacity in the child, while often it depends upon the *improper application* of a capacity otherwise satisfactory. The majority, if not all, of the first group belong elsewhere than in the reform schools, because their defective mental capacity makes their reformation impossible under the best methods known. The second group appeals to one as more hopeful; but after a time, it often appears that this group contains many who are quite as incapable of complete success in life as are those of the first group. It seems to me that only a short experience and a little reflection will convince you that the

unusual or exceptional child in the reformatory schools needs the same sort of study as in the public schools (i. e. special study by a teacher of experience in special methods of training) in order, on the one hand, that latent capacity may be developed, and, on the other hand, that *cases which seem unimprovable may be thoroughly studied before being recommended* for admission to institutions for the feeble-minded. I feel sure that many children who should be taught in the public schools, in special classes for mentally deficient children, are now constantly placed in truant and reform schools at the suggestion of parents because they find it easier to admit that their children are stubborn or wayward or even criminal, rather than feeble-minded. I have encountered this attitude on the part of parents so often in the last three years in Boston, that I have no hesitation in making this statement very positively. And in a few hearings before the Probate Judge where we have attempted the transfer of a child from the Lyman or Lancaster school to the School for Feeble-Minded at Waverley we have encountered exactly the same feeling. So little is really known by people in general, by judges and probation officers, and even by many public school teachers, in regard to what constitutes defective mental ability on a child's part, that one constantly wishes that there might be some way of enlightening teachers and officials in regard to matters of this sort. When a child is reported as possibly defective, I have been for some time in the habit of examining him in the presence of the teacher who had brought the case to my notice, because in this way it is possible to point out to her certain significant facts which she had very often overlooked. (Note:—The teacher is asked to fill out a blank which has been furnished her for the purpose, which is accompanied by a circular intended to assist her. From the latter I will quote only the *Conclusions*):—

1st, that certain children need Special Classes.

2nd, that these children, if studied with skill and care, usually show many more signs of defect of one sort or another than do those children who attain the grade standard.

3rd, that, since it is generally admitted that it is *sometimes* impossible for anyone to decide a certain kind of case, it is therefore obviously unfair to expect the grade teachers unaided to determine exactly a child's mental capacity in a difficult case.

4th, that it is equally true, on the other hand, that an examination by teacher and doctor together will often discover evidence that will enable a decision to be reached in a puzzling case.

5th, that a little knowledge is often a dangerous thing. No one should ever jump at a conclusion from the presence of any one sign. On the other hand a conclusion is often warranted by the presence of many signs taken together, especially when they represent both imperfect structure and disordered function.

6th, that while it is natural and proper that parents should shield their child in every way, it is undoubtedly true that the child seldom gains anything by having his difficulties denied and ignored. Friendly tact and

forbearance as well as firmness are needed in dealing with these children and with their parents.

7th, that many children who show only moderate lack of mental capacity have their defects corrected in whole or in part by judicious training. Therefore proper Special Class work is both humane and helpful.

Very early in my public school work I was struck by marked differences in the standards employed by parents and teachers and physicians, and consequently by the resulting differences in the inferences claimed as to the child's present and probable future capacity. It is true in general that the members of these different groups not only disagree as to their conclusions but are usually unable to accept the standards and conclusions of anybody else. The most intelligent type of doctors would not question the proposition that before beginning the treatment of a patient one should determine as exactly as possible what the diseased condition is; in other words, differentiation or diagnosis should precede treatment. At the conference in Portland last year a gentleman called attention to the department of Child-Study and Pedagogic Investigation in Chicago, which was then working out standards or "mental norms"; and "when this is done", he said, "we may be able to compare truant, delinquent and other defective children with so-called normal children in a scientific way". The only publication upon such work with which I am at all familiar comes from Professor Thorndike of Columbia University. In his preface to "Educational Psychology", Prof. Thorndike defines the book as "an attempt to apply the methods of exact science to a number of educational problems. The work of education is to make changes in human minds and bodies. To control these changes we need knowledge of the causes which bring them to pass. Such knowledge necessitates some means of measuring mental and bodily conditions; adequate knowledge necessitates accurate and complete measurements.

"If we could make such adequate measurement exhaustively, we could describe a man's mind as so many units of that emotional tendency, so many of this sense-power, and so on through a well-nigh interminable list of possible mental traits. We should then be able to state exactly the difference between any two human beings, between the condition of any one before and after any course of study or other educational influence; we could compare the results of different systems of education, describe the changes due to maturity, or calculate the personal efficiency of different teachers. To some extent we can already make accurate objective measurements of mental traits. We measure the ability to add or to spell or to translate Latin or to discriminate colors, as accurately though not by any means as easily as we can height or weight. We can use units of time taken, errors made, facts remembered, and such like, as well as inches or ounces. For instance, the number of A's marked in a minute on a blank like the one reproduced below gives a measure of a certain complex ability in perception, which is capable of the same treatment as any physical measurement". Miss Norsworthy of the Department of Psychology at Columbia, in a thesis which has not yet been published, but which she kindly lent to me, has followed Prof. Thorn-

dike's method in a study of certain groups of children in public schools in New York and of other children in institutions for the feeble-minded, by giving exact measurements of a number of traits both physical and mental in defectives, in such a way that a comparison with the general run of people is possible.

In the short time at my disposal here, it is manifestly unfair to enter into any detailed discussion of the value of these tests for measuring mental capacity. If a large experience should confirm the results so far published it will be evident that the tests are very valuable. In giving them roughly it has surprised me often to see how clearly the child's lack of capacity comes out, when he is attempting a thoroughly new task, even though it may not be a very difficult one. Of course, no such accurate scientific work as Prof. Norsworthy's would be possible for a person like myself who has not had special training for this sort of work. I believe, however, that it is possible for me to give the tests accurately and submit them subsequently to someone else for scientific treatment. Such a complete study, moreover, is not altogether desirable for my work, because several of these tests though valuable scientifically are not useful for diagnosis when only one case is under consideration. In addition, too formal an occasion is apt to modify the child's mental processes and modes of expression in a subtle way, so that he appears temporarily a somewhat different person.

The following are some of Prof. Norsworthy's conclusions: "As we have found the idiot to be not far from the ordinary child as to physical measurements of height, weight, etc., so we shall find that in motor control and perceptive powers he is not so far away as he seems to be, but that his ability *lessens enormously* when the power to deal with abstract ideas is considered". From these conclusions the inference is warranted that the most valuable tests when one has to consider the child's ability to appreciate moral and ethical considerations, are those included in the following groups:—

"Ability in the formation of abstract notions, the appreciation of relationships and the control of associations; measured by the following tests: (A) to write the opposites of a given list of words; (B) to mark those words in a list which are names of things; (C) to write a word representing some of the thing named by a given word; (D) to write a word representing something of which the thing named by the given word is a part; (E) to write the opposites of a list of words the converse of the list used in A, after the correct responses for A have been read to the class".

(Note:—At this point tests of a few cases were shown).

For a diagnosis in my work, evidence is considered from three distinct sources:—First, *the school record*; for this, Blank No. 1 is used. (Shown and explained.) Second, *a careful physical examination*, to discover whether any anatomical and physiological departures from the normal are evident; for this I use Blank No. 2, which is practically the same as the one in use in the public school and dispensary cases. (Shown and explained.) Third, *certain tests* are applied. My experience with these tests is limited to the last few months; but they have so far confirmed the inferences which I

believe that I should have drawn from the combination of the school record and of my own observations, and have occupied so little time, that I cannot help thinking that they are of great practical value. *Throughout the examination the physician must observe the child minutely; and of course no test is of such great value as to outweigh the general impression made upon the mind of an experienced physician.*

Perhaps I might merely mention the class of feeble-minded children who are called moral imbeciles. In Prof. Norsworthy's tests the few moral imbeciles examined passed the tests with an efficiency very different from the other imbeciles; and the speculation is an interesting one, whether a different series of tests may possibly be devised which will enable us to differentiate these so-called moral imbeciles from the ordinary imbeciles on the one hand, and from so-called normal persons on the other.

In presenting these results at this time I feel bound to say that this must be regarded merely as a sort of preliminary report, to which I hope to to be able, next year, to add the results of a much larger number of cases.

As to the treatment that these unusual cases should receive in the reform schools, we have as yet no experience to report. It may not be indiscreet, however, to say that personally I hope to see established in each school an accomplished teacher of large practical experience, who will be able to do as well in this work as the teachers now employed in the Boston public schools. Apart from the desirability of determining the child's mental capacity as accurately as possible for purposes of classification, I am fully convinced from the results obtained in the few cases of which I have personal knowledge, that there must be many truant and delinquent children who might be very materially benefited by having their interest awakened and their attention occupied in the schools by more objective methods, such as are now employed in the training of these special classes.

I cannot leave this subject without emphasizing again the importance of keeping this work in the closest possible touch with the splendid institutions for the custody and training of the feeble-minded that have been established in so many different states. It is only when special classes in public schools (and equally also in reform schools) can be managed in thorough harmony with the schools for the Schools for the Feeble-Minded, that we may hope to approach the solution of this complicated problem.

BLANK NO I.

1. Name and Registration Number?
2. Date of Admission to this School?
3. Previous Delinquencies? Court Record to-date?
4. Trials? State length of each, whether at home or elsewhere and what was the reason for the child's return here.
5. What is reported of character and habits of each parent and what kind of a home do they make?
6. In what grade was the child when he left school?

7. How long has he attended school here and how much has been learned in that time?

8. State on another sheet or on the back of this sheet the salient features of general life and school work as illustrating mental capacity and characteristics. Make this as complete as you wish.

BLANK No II.

PHYSICIAN'S PHYSICAL EXAMINATION.

Name
Height Nutrition
Weight Blood
Abnormalities
Asymmetry of Face
Hair
Eyes
Ears
Palate
Teeth
Tongue
Facial Expression
Bodily Deformity
Paralysis
General Muscular Co-ordination
Manual Dexterity
Gait
Reflexes
Sensation
Speech
Visceral and other Disorders

THE IMPORTANCE OF TAKING THE TEMPERATURE OF ALL THE FEEBLE-MINDED IN OUR INSTITUTION AT REGULAR INTERVALS.

CHARLES BERNSTEIN, M. D., ROME, N. Y.

SEVERAL years ago it became the custom in the Rome State Custodial Asylum to weigh and record the weight of every inmate, once every month, and giving all of these cases, which had failed in weight since the previous weighing, a thorough physical examination.

This procedure of weighing was carried on more especially to keep a check on our dietary than for any other reason, although incidentally, it served to call our attention to all failing cases, from whatever cause, especially to the cases of progressive tuberculosis. However, we were impressed with the fact that through this procedure we were only able to detect the

advancing cases of tuberculosis, and practically no cases in the very early stages.

Following this, it became the practice to take the temperature of all inmates at irregular intervals and consider all cases tubercular which had a temperature ranging above 100° if there were no other pathological condition in the case to account for the high temperature, and all such cases were isolated and given open air treatment at once.

At first the temperatures were only taken twice a year, however, in the course of a year or eighteen months, we were struck by the fact that in many of our cases, where at the previous taking of the temperature the thermometer ranged only slightly above normal, from 90 to 90.8°, in the course of several months, these cases, almost without exception, became our progressive or advanced cases of tuberculosis. Thus the procedure was initiated of taking and recording the temperatures of all inmates once each month and repeating the procedure several days in succession with all cases showing any rise whatsoever in temperature and isolating and giving open air treatment to all such suspicious cases.

In connection with this work we found that the temperature was a much better guide than fluctuation in weight. In fact very often the case of tuberculosis would be actually progressive or far advanced before the case would attract attention through loss in weight. Of course it would be practically impossible to detect the tubercular bacilli until expectoration had begun, at least several weeks after the initial rise in temperature. Even the physical signs cannot be detected until considerable lesion actually exists although it is to be supposed that considerable lesion must exist, that is a considerable nest of growing bacilli must be implanted, before we get the initial rise in temperature.

We are of the opinion that the initial rise in temperature is an earlier symptom of tuberculosis in the human being than the loss of weight or physical chest signs through auscultation and percussion.

DISCUSSION

Dr. Beaton: I would like to hear some remarks on the subject of this paper.

Dr. Bernstein: (In further explanation of the paper): Of our seventy-two cases, eighteen had a temperature above one hundred, and of those eighteen cases, at the end of the year, five had died, and the remaining thirteen had so far recovered that there was no evidence of tuberculosis and they were gaining in flesh; therefore we thought they were not recovered, but on the way to recovery.

Dr. Kenyon: The thought came to me that you had attained wonderful results, thirteen which were at any rate well on the road to recovery apparently. It seems to me that your results were extraordinary. It would seem to me that the explanation was that you carried out exactly the methods that you did, that is, that you made a tentative diagnosis and took the

cases very early. That is where the importance of your action lies. In those eighteen cases you did not detect signs?

Dr. Bernstein: The majority of them did not manifest physical signs of tuberculosis.

Prof. Johnstone: It seems to me that there is a very good thought in the fact of making these examinations regularly, and using the results in connection with the weights. Dr. Bernstein refers to the loss of weight. I merely offer in that connection the suggestion of our method of keeping weights. We use the card system. The whole thing is gone over and referred to the physician, wherever there has been a shortage in weight. We have these weights taken every second month.

Dr. Rogers: Why does not the physician do that?

Prof. Johnstone: Our store-keeper has done it always, and he ought to be a good weigh-man. We have never made the temperature examination. We shall do so, I think, hereafter. Regarding the keeping of children out in cold weather, we had a very interesting report at Trenton last winter of the children's experiment at Sea Breeze. They kept the children out there day and night, and it seemed to do them no harm. This arrangement was for children who were suffering from tuberculosis of the joints, etc. They reported very excellent results there.

Dr. Keating: There is one point in the form of tuberculosis in low grades. They very seldom cough, nor do they expectorate.

Dr. Bernstein: The sputa runs from the mouth.

Dr. Keating: These secretions are from the mouth, not from the lungs.

Dr. Bernstein: Our great trouble is that the clothing is not properly handled before going to the laundry. It is not in our incipient cases that we need look out for infection, but it is to our incipient cases that we need to give early attention.

Dr. Murdoch: What about the treatment of the clothing in the laundry? Do you think the ordinary washwoman occasionally neglects to boil the clothing?

Dr. Bernstein: We do not admit that she does.

Dr. Rogers: Do you boil it for an hour?

Dr. Bernstein: I presume we do. Our foreman has instructions to do so.

Dr. Keating: It seems to me that is unnecessary. In all surgical operations the instruments are fully sterilized in five minutes.

Dr. Bernstein: That may possibly be so, but in order to be on the safe side we have done as I have stated. Of course, I think it is generally recognized that in order to dispose of tubercular bacilli we need a little longer time than we do to get rid of other bacilli.

Dr. Beaton: I presume we have exhausted the question of the paper now, and will proceed to business.

A REVIEW OF LEGISLATION IN RELATION TO THE FEEBLE-MINDED AND EPILEPTIC IN 1904.

J. C. CARSON, M. D., SUPERINTENDENT SYRACUSE STATE INSTITUTION FOR FEEBLE-MINDED CHILDREN.

Governors' Messages: In the interests of the feeble-minded and epileptic reference was made by only two governors, those of South Carolina and Kentucky, in their messages for 1904.

In South Carolina it would appear as if inebriates, epileptics, and insane were all being provided for by the State in one hospital building. The Governor wisely recommends separate provision for each of the classes mentioned in buildings upon the present property. A still wiser recommendation would have been that of buildings for each in separate localities.

A law in Kentucky authorizes the county authorities to "farm out" at state expense pauper idiots at a certain stipulated rate and which we believe is $75. per year. The system has often been condemned and considered a premium upon idiocy. The Governor asks for a report from auditors of the amounts paid by the state for the support of idiots. He declares it to be a "big pauper pension system" and asks the Legislature either to curtail its growth or abolish it altogether. He also advises that each county be required to take care of its own poor. A better system would be for the State to care and provide properly and separately for the feeble-minded and idiots as distinct from other portions of the pauper class. If the annual rate allowed by the State is not more than the amount above mentioned it would seem that an inquiry into the care and supervision of idiots under the present farming out system might in some instances prove interesting.

Legislation: In New York an act ('04 Ch. 462) amending '96 Ch. 546 was passed relating to the Rome State Custodial Asylum. The first important feature of the amended law is the elimination of the objectionable words "unteachable idiots" and the substitution therefore of "feeble-minded persons and idiots". The second is in relation to the appointment of a superintendent. When the Rome State Asylum was established it became a part of the State hospital system for the insane and the law required the managers to appoint a superintendent whose experience had been confined to the care and treatment of the insane. Inasmuch as the asylum now provides only for the feeble-minded and idiots the amended law very wisely and fairly extends the qualifications of a superintendent to one who has had "suitable experience and training of not less than three years in the care and treatment of the mentally defective classes, epileptic or insane". Furthermore, the law very properly requires that the State Civil Service examination for the position shall be given upon the lines of qualification, experience and training as above mentioned.

A second act in New York ('04 Ch. 545) also amends '96 Ch. 546 by adding a new subdivision in relation to autopsies at the Craig Colony for Epileptics. It provides that in case of the death of any patient at the colony who

shall have been maintained wholly at public expense and whose body is not claimed by relatives or friends within forty-eight hours after death, the person claiming the body for burial shall present an affidavit stating that he is a friend or relative of such deceased patient and the facts and the circumstances upon which the claim of such relationship or friendship is based. If such person shall refuse to make said affidavit the right of claim to the corpse becomes forfeited. The purpose of the act is to legalize the performance of autopsies upon unclaimed bodies in the interests of science.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX SEPTEMBER-DECEMBER, 1905 Nos. 5-6

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, PH. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.
ALEXANDER JOHNSON . - - - - - New York, N. Y.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Postoffice at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

SCHOOL-ROOM SUGGESTIONS.

Perhaps the most important point for the teacher of feeble-minded children to recognize is, that she is to guide her children so that they may obtain knowledge for themselves—and not to tell them a lot of facts. It is almost true that anything which the skillful teacher cannot lead the child to find out for himself is really of no value to him after it has been given to him.

As much of our teaching is along the lines of nature study and sense training, there is every opportunity for concrete methods to almost entirely supersede abstract methods, as should be the case.

Many of our children have unusual memories (as compared with their other mental powers) and even the teacher is often led to believe she has a

bright pupil, or that she is teaching her pupil things because he can repeat a lot of facts. These are useless incumbrances upon his mind if he cannot use them. For a child to find out by his own observation the difference between a rose and a lily is of inestimably greater value than for him to be able to repeat the names of a hundred flowers which he would not be able to recognize.

The "learn to do by doing" idea should have a very important place in all lines of instruction in our institutions. We all think we use it, and in manual and industrial training it is almost always strong, but in our schoolrooms it is often woefully lacking. Why not teach reading and language, numbers and writing in this way? To begin writing by giving simple lines that have no meaning or to give figures before they are presented as the names of numbers already known, is proceeding from the unknown to the known. It is presenting hieroglyphics to feeble-minded children and depending upon their memories to hold this "stuff" until they have arrived at an understanding by a roundabout way. No child learns to talk by being filled with the elementary sounds before being allowed to attempt to say words, nor indeed does he attempt to say words until he gives them a meaning, unless some teacher of the "good old-fashioned school" gets hold of him.

E. R. S. J.

NOTES CONCERNING CARE OF EPILEPTICS.

About 1000 patients are cared for at Gallipolis, O. An increased capacity to the number of 250 beds has been promised for the first of the year 1905. Total epileptic population for the state is estimated at 2050.

The Craig, at Sonyea, New York, is caring for 1006 patients, and has nearly as many more on the waiting list. The epileptic population for the state is estimated at 14000.

500 patients are cared for at Palmer, Mass., with 200 on the waiting list; estimated epileptic population of the state is 10,000.

150 patients are cared for at the New Jersey State Village for Epileptics at Skillman with 405 on the waiting list; estimated population of the state 2500.

250 patients are cared for at Abilene, Texas, with about 300 on the waiting list, and 1000 estimated for the state.

About 200 patients are cared for in the State Hospital for Epileptics at Parsons, Kansas.

Indiana is promised provision for a large colony; work to begin this year. The legislation contemplates 1000 acres of land for the colony.

JOURNAL OF PSYCHO-ASTHENICS.

VOL. IX MARCH, 1906 No. 7

ORIGINAL ARTICLES

THE EYES OF THE FEEBLE-MINDED.*

BY JAMES THORINGTON, A. M., M. D., PHILADELPHIA.

THE following report is based on the study and examination, extending over a period of twelve years, of over 2,000 cases coming under the author's observation as Ophthalmologist at the Elwyn (Pa.), Training School for Feeble-Minded Children, and the two Training Schools for Feeble-Minded Children at Vineland, New Jersey.

Blepharitis Marginalis, Styes and Chalazia. These conditions were frequently observed and occasionally in very exaggerated forms. They were always amenable to treatment, their cause being frequently attributed to the want of personal care and attention. Hydrotherapy is a decided preventive of many of these conditions.

Conjunctivitis in its Various Forms. Like the preceding conditions, conjunctivitis is not at all a rare disease and occasionally appeared as an epidemic, in the acute catarrhal form. Chronic conjunctivitis was seen in several instances accompanying dacryocystitis. Trachoma, considered as a very serious variety of conjunctivitis, was never seen in these institutions, although several cases of very severe follicular conjunctivitis came under observation.

Dacryocystitis. Twelve typical cases of this disease have been recorded. These were all operated upon. Many cases of epiphora have also been recorded.

Keratitis. This disease was frequently observed, but only in two instances as of the interstitial or specific variety. (This will be referred to

*(This paper read at Vineland, 1905, has been revised and brought up to date.)

later under the heading of Syphilis). Ulcers of the cornea as one of the varieties of keratitis, were quite common, and were due to the patients' physical condition, rhinitis, or to injuries. The scars or opacities resulting from such ulcers were correspondingly frequent, and these opacities were of such serious moment in forty-eight patients that no glasses would improve vision. Many of the children were found to have opacities of the cornea on admission to the institution.

Scleritis and Episcleritis. Several cases of this disease were seen, and yielded to anti-rheumatic remedies, particularly to the use of the salicylate of soda pushed to the point of tolerance.

Iritis. This disease was seen as of rheumatic origin or from injuries, but in no instance could it be attributed to hereditary syphilis. Many eyes showed adhesion of the iris to the capsule of the lens (synechia), indicating therefore that at some previous time there had been an inflammation of the iris, possibly in intra-uterine life.

Cataracts. There were twenty-four cases of congenital cataract, twenty of these having cataract in both eyes, the other four having cataract in one eye only. Anterior polar cataract occurred in both eyes in four patients, in one eye in two patients; posterior polar cataract occurred in both eyes in four patients; lamellar cataract appeared in both eyes in twelve patients, and in one eye of two patients. This frequency of congenital cataract (more than one per cent.) suggests that the condition may be a stigma of degeneration.

Retinitis. This disease did not appear "per se" but was seen associated with cases of choroiditis or neuritis. The condition of Retinitis Pigmentosa was never observed in any of these eyes.

Choroiditis. Of all the cases examined there were but six that showed disseminated choroiditis in both eyes, and two patients had it in one eye only.

Neuritis. Inflammation of the head of the optic nerve in the acute form occurred in both eyes in six cases, all of which have since died. One of these was a case of Syringomyelia, having the unusual and characteristic "engorgement" papillitis of von Gräfe, and was reported by the writer, and illustrated, in the American Journal of Medical Sciences for December, 1905.

Optic Atrophy. Twenty cases revealed this condition more or less marked, and two had total blindness. Several showed gray atrophy accompanying spinal cord changes. In looking up the histories of some of the patients the author was surprised to find the absence of any specific history in the parents, but did find it noted that many of these cases had scarlatina in infancy accompanied with severe delirium, indicating, in the author's opinion, that these patients must have had at the time of the delirium and fever an inflammation of the brain or its coverings, or both. This would possibly explain the underlying cause of the marked nerve changes referred to.

Glaucoma. This occurred but once and in a lad of about twelve years of age, and was due to trauma, his lens having been dislocated into the

vitreous where it became swollen and produced intra-ocular tension.

Malformation of the Orbit. At first thought this would seem to be foreign to the subject of this paper, and yet it is a most important part of of this subject, as will be explained further on. The condition is such a frequent one that he who runs may read. So many of these feeble-minded children have distorted skulls that the orbit and its contents come in for their share of the consequences. This condition certainly provokes many of the unusual astigmatisms noted in the following table and also plays an important part in the obstruction of the nasal duct, and likewise is no doubt a cause of some of the "squints" reported.

Congenital Anomalies. One patient, a young girl, had a coloboma of the iris and choroid in each eye, and also a coloboma of one lens. One other patient had retained nerve sheaths in each eye. There were twenty-four cases with cataracts. The writer would draw the attention of his readers to the fact that many of the congenital anomalies mentioned in some of the text books, as "ocular stigmata of degeneration" were absent. For instance, the writer did not observe Megalophthalmus, Microphthalmus, Aniridia, Polykoria, Corectopia, Retinitis Pigmentosa, etc.

Nystagmus. This disease, or really symptom of a disease, recorded as a "stigma of degeneration", was seen more frequently than any other anomaly. There were twenty-eight patients having nystagmus in one or more of its varieties. This condition usually accompanied some one of the various forms of cataract above noted, and also in one or two cases it was present with corneal opacities.

Convergent Squint. There were sixteen cases of this condition. The squinting eye usually had the higher refractive error, but occasionly the squint was due to the presence of a corneal opacity. Some few patients had the squint due to the presence of cataract, and also to injury and malformation of the orbit.

Divergent Squint. This was not at all a common condition, but was observed on several occasions and was usually due to myopia, a corneal opacity or a distorted orbit.

Syphilis of the Eye. There are two diseases of the eye which ophthalmologists recognize as usually due to inherited syphilis, viz., interstitial keratitis and choroiditis; this latter developing in an adult is also considered as due to syphilis. In the above report of cases it will be recalled that only two patients had interstitial keratitis and six had choroiditis. Therefore, as far as the ophthalmologist is concerned, he is not ready to state that the eye is an index in a very large proportion of the feeble-minded children of their being syphilitic. When well known authorities state that ten or twenty or twenty-five per cent. of the feeble-minded are syphilitic, they must base statistics on the recognition of the disease in other parts of the body rather than in the eye.

Muscular Insufficiencies. While in the majority of instances it was quite impossible to get definite answers to the rod test for these conditions, on account of the mental qualifications of these patients, yet it was not impos-

sible in most of the cases to demonstrate the angle gamma which was found negative in most instances.

Visual Acuity and Fields. The record of the visual acuity was not attempted with any degree of accuracy except in the high grade children, and for the same reason that muscle balance could not be recorded, and also for the same reason it was quite impossible to take the field of vision. After several vigorous attempts field taking was abandoned as utterly hopeless. The few fields successfully recorded were among the high grade children, two of whom had acromegaly.

Glasses for the Feeble-Minded. During the writer's twelve years' work among the feeble-minded he has written prescriptions for glasses for six hundred and fifty patients. This does not mean that only six hundred and fifty pairs of eyes have been examined; on the contrary, fully as many more were examined, but for certain good reasons to be mentioned glasses were not prescribed. Those cases which the resident physicians, teachers and attendants recognized as in any way defective in their seeing qualities, or those cases which complained of any headache or eye symptoms, were referred for a study of their eyes. Atropin solution in the strength of one grain to two drams of water was usually prescribed as the cycloplegic and an examination of the eyes was then carefully made by the oblique, direct and indirect methods, so that each eye structure was inspected and its condition recorded. The refractive error was also carefully estimated with the retinoscope, as this is the ideal method of gaining this information in these patients. When the refractive error was one diopter or more, it was usually prescribed and ordered in strong spectacle frames specially constructed for these patients, to prevent breakage of the lenses and to keep the lenses in position, that is to say the frames could not easily get bent. If the refractive error did not exceed one diopter sphere or cylinder, it was not prescribed unless so ordered by some hopeful relative of the patient. It is the writer's experience that weak lenses were seldom appreciated by these patients, and after considerable experience in this direction weak lenses are no longer ordered. It may be interesting to tell you that we have some interesting changes in the disposition and habits of some of these children after glasses have been prescribed. However, I would not want to be quoted as being able to always change one's disposition with glasses. The fact remains true, however, as the following instance will prove.

A lad of eight years was noted for his habit of holding persons who came near him and then rubbing his hands over their faces and getting his face close to theirs, and then laughing as if it was a joke. This boy was also in the habit of getting his face close to his plate when eating. He was classed as middle grade, although considered in some respects as worthy of being low grade. Upon examination he was found to be myopic six diopters with astigmatism. As soon as these lenses were placed before his eyes and the blinds of the windows were opened so that he could see at a distance, he stood like one with catalepsy, but soon began to jump up and down and to point at distant objects out of the window and then about the room, and

finally to observe the features of those about him. He was overjoyed. When the glasses were removed from his now smiling face he immediately lapsed into his accustomed sardonic grins. This lad with his glasses is an entirely different child in habits and disposition and expression of countenance. This is but one of many cases so improved. And is it to be wondered at when we stop and consider that we all learn most by seeing?

What we do for the feeble-minded is not giving them intellects, (the impossible) of which they are so sadly deficient, but rather we assist them by training their faculties, and here we have the eyes as the great channel to the otherwise dormant, vicious or perfunctory brain. I have, therefore, felt at great liberty in my efforts in prescribing glasses in each case, in which I had the least hope of assisting the patient by making his vision clearer and without eye strain. If glasses help the normal child, why would they not help the feeble-minded? My efforts have been successful in so far that about fifty per cent. of the males, and about seventy-five per cent. of the girls continue to wear their glasses. I have not had much success in prescribing glasses for the low grade children, though I have examined many of their eyes simply to record the condition of the optic nerves and eye grounds, rather than to study the refractive error with any idea of ordering glasses, though many of the low grade children have high errors of refraction. Low grade children do not appreciate the purpose of the glasses, they will not keep them on long enough to know their value or feel the relief that glasses will give, but rather they seem to consider the outfit a restraint and proceed to pull them off, to break the glasses and bend the frames. It is therefore really a useless expense to give glasses to these poor unfortunates. Even with the middle and high grade children the spectacle frames are often bent while at play, or they are roughly handled when taken off, so that it becomes quite an additional care for the attendant to keep the glasses in order and from being mislaid.

The highest near-sighted correction I came across among the feeble-minded was a young woman who required thirty diopters with a cylinder, and the highest far-sighted correction was a boy who required twelve diopters, also with a cylinder.

	No. of Cases.	Per cent.
Hypermetropia	215	.33+
Myopia	40	.060+
Compound Hypermetropia	146	.22+
Compound Myopia	41	.063+
Mixed Astigmatism	29	.045+
Simple Hypermetropic Astigmatism	25	.038+
Simple Myopic Astigmatism	12	.018+
One eye Myopic and the other eye Hypermetropic	14	.02+
Heterometropia	74	.11+
Monocular Astigmatism	54	.083+
Total	650	

Binocular Astigmatisms	327	.50+
Monocular Astigmatisms	54	.083+
Eyes without Astigmatisms	269	.41+
Total	650	
Binocular Astigmatisms		
With the rule	157	.25+
Against the rule	24	.036+
Heteronymous	11	.016+
Total	192	.29+
Asymmetric Astigmatisms		
With the rule	40	.061+
Against the rule	14	.020+
Heteronymous	7	.010+
Total	61	.09+
Monocular Astigmatisms		
With the rule	35	.055+
Against the rule	19	.029+
Total	54	.083+
Astigmatisms with the rule	232	.35+
Astigmatisms against the rule	57	.08+
Heteronymous	18	.027+
Heterometropia	74	.11+

The above table may be of interest to those who understand refractive errors. To me, personally, it is quite interesting in this way. It shows the prevalence of unusual axes of astigmatism, asymmetric astigmatisms and heterometropia or a difference in the character of the refraction in the two eyes. These conditions may readily be accounted for in many instances by the difference in size and shape of the two orbits in the same individual. About twenty per cent. of all the eyes showed some amount of myopia, whereas the normal amount or the per centage among normals is only seventeen per cent.

This difference in the per centage of myopia may be explained by the low vitality of many of these children; the eye structures yielding more readily to eye strain than among the normal, or those with a more rugged physique. About twenty-three per cent. had unusual astigmatisms, as just mentioned, and this is almost double that found among normals, and is explained by the skull formation or distortion.

In my studies I have looked carefully but unsuccessfully to confirm the report of William C. Krauss, who considers the eyes of the feeble-minded as too large. This has not been a striking feature in my examinations. The statement about the astigmatisms in connection with the defective orbits, which I have already mentioned, is a feature, in my estimation, that stamps the eyes of the feeble-minded as differing markedly from the eyes found in individuals in the normal walks of life. Congenital cataract, with or without nystagmus, appears from my study to be equally characteristic of de-

fective mentality, and may well be classed as one of the stigma of degeneration. If asked the question how many feeble-minded children had defective eyes, refractive or otherwise, I should venture about seventy or seventy-five per cent. as the average. This per centage is naturally higher among normal individuals by reason of close application of the eyes while obtaining an education, and also in the various business pursuits for a livelihood.

Five children among all those examined, had emmetropic eyes.

In conclusion I would urge upon you the great necessity and importance of having the eyes of the feeble-minded children carefully and regularly attended to by one who has the experience, patience and ability which such work as this demands.

DISCUSSION

Dr. Beaton: The paper of Dr. Thorington is now open for discussion. I am sure it is of sufficient moment to bring out a great deal of discussion.

Prof. Johnstone: I think I should speak of Dr. Thorington's suggestions relative to the moral effect of glasses. One case he mentioned is in this institution. Five or six years ago he was one of the cases that was referred to the superintendent every day or two as incorrigible and practically unmanageable. He received the usual routine of institution treatment, which did not seem to have any effect upon him, as far as discerned. He was finally given glasses, rather under protest. Dr. Thorington classed him among those that he said he did not think glasses would do any good. The wearing of glasses was made a kind of privilege to the boy. Inside of a year and a half or two years we provided him with four or five pairs of glasses, and in that time the glasses that he had were twisted and bent, and new sides put on, etc., etc., so that we felt for awhile there was no use in trying any more, and then came the thought that it did pay. Dr. Wilson says it is about a year and a half now since the boy has had to have new glasses, and the boy has made a very marked change, which I do not think can be traced to anything else, but to the use of glasses. We would now call him a good boy.

Dr. Rogers: I feel as I presume others do, that little is to be added for want of definite technical experience. The doctor's address will be a classic for reference in the proceedings of this Association, and a very valuable contribution.

Those who have noticed the program will observe that the tendency this time has been to have papers from specialists not living the institution life, by men of such experience and repute in their profession that these proceedings will have great value.

Dr. Wilson: I was interested in the doctor's paper, and the only objection I can make is that the opticians do not visit the institutions oftener. I have seen some marked improvement by glasses. I was very much pleased with the paper.

Dr. Beaton: If there are no more remarks, we will pass on to the next paper.

THE EMPLOYMENT OF THE FEEBLE-MINDED .

"AFTER-CARE" IN BIRMINGHAM

BY MRS. HUME PINSENT.

I have been asked to give some account of the work of the Birmingham After-Care Committee. It is now in the fourth year of its existence, and I think it may claim to have already accumulated some useful evidence bearing on the problems which are continually puzzling those who are engaged in the work of educating the mentally defective.

Four years of investigation is too short a time in which to collect any conclusive statistics, but it may be suggestive if I give you the figures we have at present obtained, pointing out at the same time where longer experience may lead to certain modifications in the results.

But in the first place there are one or two general rem rks which I should like to make on the scope and aims of After-Care Committees.

The need for these "Committees of Inquiry" (as I should prefer to call them) must be apparent to anyone engaged in special school work. Most of us, as we stand in a class-room of mental defectives, must have asked ourselves such questions as these: "What will be the ultimate fate of such children? How far is the laborious and expensive education we are providing worth while? How can we find out the real results of special class teaching, and judge if we are proceeding on wise lines"? We can only answer these questions by establishing After-Care Committees whose business it shall be to watch and to record the future of all those who pass through special classes.

It is only by doing this methodically for a considerable number of years that we can obtain any accurate knowledge as to the adequacy of special class teaching to prevent mental defectives from becoming social parasites. How many of them become wage-earners? How many become self-supporting? How many ultimately get into prison or into the workhouse? What proportion of them have children, and of these children how many become drunkards, prostitutes, criminals, or are themselves mentally defective?

It was to obtain evidence on all these points that the Birmingham After-Care Committee was established. Another object, but in the minds of the founders quite a secondary one, was to find situations for children leaving special schools, and to do all that was possible for these children by care, advice, and personal influence.

I do not wish to under-rate the value of this side of the work, but if I am truly to express my own opinion, which is founded on our experience in Birmingham, I must say that I think the personal influence of the after-care member in the homes of the feeble-minded is practically *nil* except in a few rare cases.

I should like to emphasize this point rather strongly, as since the forma-

*Read at the Guild-Hall Conference in England in Oct. 1904, and published in the Charity Organization Review, March 1905.

tion of our Committee, many others are coming into existence, and I think I see a tendency to over-value the supposed effect of personal influence, and to under-value the importance of collecting evidence.

When we consider the great number of children with whom we have to deal, realizing at the same time that this number increases annually, and that the majority will need looking after for the rest of their lives, it is absolutely absurd to entertain any idea of appointing enough members of After-Care Committees to act as guardian angels to each feeble-minded individual. Not only that, but it is by no means every philanthropically inclined man or woman who is fitted for this difficult work, and those who are most fitted have so much on their hands that they cannot give the necessary time to be always in and out of the homes of the feeble-minded. No influence that is not continuous in its action can ever be effective with weak-minded individuals. Their very defects are such that they are unable to retain ideas from month to month, from week to week, barely from day to day, and what after-care visitors can come into daily contact with the feeble-minded under their care? The parents of the majority of of cases are degraded, drunken, or themselves feeble-minded, and far too much set in their modes of life to be permanently influenced by the occasional visits of an after-care member who inhabits an entirely different world from theirs, and who in many cases they regard with suspicion and distrust. Members who started with high hopes of the good to be done in individual cases almost invariably report after a few months that their cases are hopeless, and that it is mere waste of time to continue to visit them. It is only possible to retain the services of these members by convincing them that they must work for a more general object—that it is necessary to watch the worst cases in order to be able to say, "So many per cent. are in prison, so many per cent. are in the workhouses, and so many per cent. have given birth to illegitimate children."

If we can convince the public that by taking certain steps these disastrous results can be prevented, we shall have done more real good to society by patiently watching and recording events than if we had spent our time in desperate efforts to exert personal influence over individual cases.

Let me take one or two examples.

Two of my own cases have already been in police trouble, and in neither case have I been of the smallest help. One has actually been in gaol for breaking into an empty house. I doubt if this boy has intellect enough to remember me from visit to visit. He has two feeble-minded brothers, and nothing can be done with the parents. They are absolutely impervious to reason, and at the same time seem to lack the unreasoning instinct possessed by animals to protect their offspring. Could any influence of mine have prevented that lad from getting up in the middle of the night and breaking into an empty house, for which, though it was an absolutely motiveless crime, the magistrates, who knew nothing of the boy's history, sent him to gaol?

The following case of a girl will illustrate another side of the question.

This girl has a feeble-minded mother with an uncontrollable temper. The girl is, both as to intellect and temper, a degree worse than her mother, and the two fight. It is not improbable that the girl will stab her mother before long. There is no money to send the girl to a Home, and though, after much hard work, we induced the guardians to take her into the workhouse, they returned her to her parents after a month. She is now given to straying about the streets by herself, and will soon fall a victim to some street loafer, as she is not unpleasing in appearance. What can an after-care member do? She cannot live with the girl and follow her in all her wanderings, and short of that no personal influence can meet the case. Disheartening as it may be to confess it, we can do nothing for these individuals; but what we can do is to record what happens, and lose no opportunity of demonstrating the inhuman, absurd, and uneconomical methods of a society which spends money on police supervision and on prison and workhouse accommodations for the feeble-minded, who, if working under control in an industrial colony, could have been made very nearly self-supporting.

The first aim, then, of an After-Care Committee should be carefully to collect and accurately to record the details of the lives of the feeble-minded, and to deduce from this evidence some rational method of preventing the disastrous results of leaving such helpless and irresponsible people to prey on society and to perpetuate their kind.

The second aim should be to give help to such individuals as are capable of profiting by it. While we keep the first object steadily in view, we shall not be greatly disheartened or disappointed if we obtain little permanent result from the second.

The Birmingham After-Care Committee is a sub-committee of the Special Schools Committee. This enables us to keep in touch with the special schools, to get some knowledge of the cases while still of school age, and to follow them up immediately they leave. We have a number of co-opted members, among whom are the superintendent, visiting officers and several medical men and medical women. Each member undertakes about five to seven cases, and sends in a report on each case three times a year. These reports are all entered into a ledger, and from this we hope in a few years to produce a body of absolutely indisputable evidence.

I will now give you the result of our investigations as shown by our last annual report:—

We have now eighty-three mental defectives on our after-care list. Of these *only* twenty-six are wage-earners. The wages they earn vary from 2s. 6d. to 10s. a week, and average 6s. 1d. The average weekly wage has gone down and not up, as it should do. This is probably due to two causes—the general depression of trade, during which unskilled feeble-minded individuals are the first to suffer for want of work; and also the undoubted fact that feeble-minded persons tend to degenerate on leaving school, when discipline and control are relaxed, and there is nothing to counteract the bad influence of degraded surroundings. It should also be borne in mind that many of

these *wage-earning cases* frequently change their situations, and that, therefore, the average year's earnings would give a lower figure than 6s. 1d. per week, owing to employment being intermittent. From these facts, it is safe to conclude that only a small percentage even of the wage-earners will become entirely self-supporting. Yet all these wage-earning cases are capable of work, and it is probable that if working under supervision in a colony this work would be much more remunerative, and it would undoubtedly be perfectly continuous. So much for those who have left our special schools capable of earning wages. We still have to consider the larger class who are stated in the annual report to be doing no work, though many are capable of simple manual work under supervision. There are thirty-three of such cases recorded.

These, added to those who are wage-earners, but incapable of remaining so, would make a very large percentage of feeble-minded individuals who will eventually have to be supported by the community. I have elsewhere worked out the percentage, based on our after-care evidence, of cases who have a chance of becoming self-supporting, and the result was about seventeen per cent.; the remaining eighty-three per cent. will require permanent protection and partial support. But I should like to point out that it is probable that certain improvements in the education of these defectives would considerably increase the percentage of the self-supporting. Our material is bad, but I do not think we have yet evolved the method which will make the best of it. Far better results might be obtained from mentally defective children if their attendance at school were more regular and of longer duration, and if the education given included much more manual work. The average time spent in a Special Class by the cases I have mentioned under the head of wage-earners was only two years and ten months, instead of eight or nine years, as it should be. At present, we only find them late, and in one way or another they manage to escape at or even before fourteen. Also they are continually moving from district to district, and for months at a time they evade the Visiting Officer. The irregularity of attendance and frequent disappearance of these children constitutes a very strong argument for boarding schools. If these children could be secured at an early age and retained until sixteen, and if much greater importance were attached to the manual side of their training, I think we should considerably increase the proportion of the self-supporting, though it is but too likely that they would be self-supporting, only if working under control. The work begun in the schools would be continued in the Industrial Colony; in consequence of better training and perfect regularity the wage-earning capacity would be increased, and many who now earn nothing would be able to contribute towards their own support.

During the second year of its existence the Birmingham After-Care Committee, believing that its most useful function lay in collecting evidence, set on foot an inquiry on a larger scale. A sub-committee was formed which included among its members five medical men to examine cases of idiots, imbeciles, feeble-minded, and epileptics, both of school age and above

it. This inquiry was by no means exhaustive, and probably only a small part of the existing cases were found and examined, yet the results yielded a striking bit of evidence: one hundred and twenty-nine were reported as needing the permanent care of a colony; fifty-three children were found to need a boarding school; and forty-five others were classed as idiots and imbeciles. As a direct result of the evidence obtained in this manner, the Birmingham Education Committee determined to build two experimental boarding schools for the mentally defective, and also agreed that the question of colonies should be referred to the proper authorities. To carry out this second resolution the After-Care Committee appointed a deputation to wait on the various Boards of Guardians in Birmingham and discuss the difficulties of permanent provision for the feeble-minded. The three principal Boards of Guardians concerned called a conference, which has resulted in a determination on the part of the three Boards to combine and provide homes for the epileptics and the feeble-minded in their districts. It is hoped that feeble-minded children, on leaving the boarding schools about to be established by the Education Committee, will be transferred to these homes. If this scheme meets with the approval of the Local Government Board, and is carried out in the wide-minded and generous spirit in which it has been conceived by the Guardians, I think Birmingham will have taken an enormous step towards solving the difficulties of dealing with the feeble-minded. But there will still be much left to do, for no scheme can be complete until we have further legislation which will enable us to detain all feeble-minded individuals who are incapable of self-support outside an Industrial Colony.

The next piece of work undertaken by the After-Care Committee was to institute an inquiry throughout the charitable homes and institutions of Birmingham in order to ascertain the number of feeble-minded persons already being supported by private charity. This inquiry was carried out by Dr. Potts, who visited fourteen institutions. These fourteen institutions contained eight hundred and sixty-two individuals, of whom he found that ninety-four were so feeble minded as to require permanent care. This works out at over ten per cent. It should be understood that none of these institutions are intended for the mentally defective; therefore it is impossible that they can receive the special care and training which they require, and their presence must interfere with the normal working of the institution. The Committees of Management only keep them because of the appalling consequences of turning them adrift. In one Magdalen Home one hundred consecutive cases were examined and thirty-seven were found to be feeble-minded. In the same home, out of twenty-eight girls leaving after two years' training, twenty-one have already had to have permanent provision found for them. The obvious deduction from this inquiry is that it would be wiser to provide permanently for such cases from an early age, to ensure that such wage-earning capacity as they possess should be made the most of, and they should be prevented from giving birth to other defectives.

I have endeavored to give you a brief outline of the evidence already

collected, and it only remains now to consider in what direction we should look for further evidence. There are two obvious fields for inquiry which suggest themselves—the workhouses and the prisons. We want more accurate statistics from both. It would seem fairly easy to obtain the percentage of mental defectives in both these departments through the medical officers. But figures given by the ordinary medical officer—even if he could be induced to give the necessary time to procure and tabulate them —would not be of any great value. It is probable, unless he had made a special study of the subject and had had some experience in special classes, that he would pass over a great many cases of mental deficiency. To be of any real value the work must be undertaken by an expert. If an expert could obtain permission to visit some large workhouses and prisons, and carry out some continuous investigations, I think the results would be most valuable and interesting. We should then obtain some idea of the percentage of feeble-minded paupers and criminals, also the percentage of feeble-minded women who give birth to children. A lady guardian and the master of a workhouse in Devonshire tell me that about sixteen per cent. of women who come to their maternity ward are feeble-minded, and I have collected a number of individual cases from the workhouses in Birmingham of feeble-minded women who return to the workhouse for their confinements over and over again. One has had nine children in this manner. Individual cases are unconvincing, but accurate figures prepared from the work of an expert, and averaging the numbers over a long period, would be an unanswerable piece of evidence. If every After-Care Committee would set on foot a workhouse inquiry, I think the results would be very valuable, and perhaps it might be possible to obtain leave to work in the prisons as well.

But whatever may be the results of further investigation, the evidence already collected tells strongly in favor of the idea that permanent care in colonies is the only satisfactory method of dealing with a large percentage of cases. Increased efficiency in training may reduce this percentage slightly, but in this connection it is interesting to note that the great American industrial colony at Waltham in Massachusetts started over fifty years ago with the idea that defectives could be so trained as to be rendered capable of returning to their own homes and supporting themselves, but they have been unwillingly obliged by experience to give up this theory, and now undertake to keep defectives of all grades, from the idiot to the merely feeble-minded, until the end of their lives. Dr. Fernald, the Superintendent of the colony in Massachusetts, believes that "each one hundred dollars" invested in this work "saves one thousand in the next generation," and this must certainly be the case if there is anything in the doctrine of heredity. I know that some scientific men believe that Nature takes care of herself, and that in the long run she ensures that only the fit shall survive. It needs a large amount of faith to believe this when we are told that in addition to a hundred thousand lunatics there are also a hundred and eleven thousand feeble-minded individuals in this country. Nature seems to take her own

time in stamping them out. There can be little doubt that, even if mental deficiency does not always descend directly from parent to child, the children of deficient parents are not likely to succeed in the world. Further investigation will, I believe, show that among the children of deficient parents a large percentage have some marked neurotic taint, and they tend to degenerate, and materially to increase the ranks of paupers, prostitutes, drunkards, and criminals. More than one of our most prominent thinkers seem to be coming to the conclusion that the great work of the future towards solving social problems will lie in the direction of securing that the population shall be increased from the healthiest stock. While many of us may still think this too Utopian for serious consideration, we may at least begin at the opposite end of the scale by taking measures to segregate the mentally deficient.

SMALL POX IN AN INSTITUTION.

F. R. HUXLEY, M. D., FARIBAULT, MINN.

ON June, 8, 1901, while an assistant physician at the Minnesota School for Feeble-Minded, my attention was called on my morning round in Sunnyside, one of the buildings of the Custodial Department, to Joe C., a fairly low grade boy, 22 years of age.

His face was flushed and he complained of a severe headache. He was sent to the general hospital where he was placed alone in a small ward. His temperature was found to be 104 .8 axillary, pulse 105. (We had found that axillary temperature was .6 degree lower than by mouth.)

Shortly afterward he began to vomit. Cold sponges and cathartics were ordered. Evening temperature was 103, pulse 100. On the next day a superficial macular rash, presenting no shotty feeling, appeared mostly on the body, a few maculae however were on the face. There were some papules but no vesicles. Patient was feeling comfortable. Temp. 99, pulse 90. The evening Temp. was 98.8, pulse 95.

On the third day there appeared various stages of vesicles and papules, the former showing no umbilication. The eruption appeared less superficial than on the preceding day and showed slight areola.

A diagnosis of small-pox was made and the patient was sent to quarantine hospital with a Temp. of 98, evening 98.8.

On the fourth day eruption was approximately in the vesicular stage, many vesicles containing cloudy fluid and some showing a tendency to umbilication.

On the fifth day the morning Temp. was 99, evening 99.2. On the sixth day about 150 pustules were counted on the face and the body was covered including the palms of the hands, soles of the feet and edges of the hair. The eyelids were also involved and in many places the eruption was confluent. There was no tendency to successive crops. A marked conjunctivitis necessitated the irrigation of the eyes every four hours.

On the seventh day the eruption was largely pustular with some crusts on the face. Patient had marked malaise. Morning Temp. 100, evening 101.

On the eighth day evening Temp. was 104, but fell to 100 on the evening of the ninth.

On the tenth day the Temp. was 98.4 and remained practically normal throughout.

The crusts disappeared more rapidly on the face than on the body and on the fourteenth day the face was practically clear. The patient was released on the fifty-second day.

This patient had not been vaccinated and presented a severe form of the disease typical of the unvaccinated cases, 14 in number.

All this group of cases showed a secondary rise of temperature above 99 axillary except one which showed a very severe eruption and marked malaise, the case of Martin K., age 15 years. Eruption appeared on June 14 with a few vesicles on forehead which rapidly covered the entire body and it was with difficulty that he was restrained from scratching. The pustular stage began in two days, crusts formed in three and there were marked discoloration and pitting. He was discharged on the forty-third day. His temperature however remained practically normal throughout.

All unvaccinated cases were severe. The prodromal symptoms however were noticed only in the first case recorded, a brighter boy. With this class of patients one had to depend altogether on the objective symptoms as there was no suspicion of small-pox until the appearance of an eruption.

All the vaccinated cases, of which there were three among the inmates, were mild.

Eddie B. Epileptic. Age 12 years. Had very few papules and vesicles on face and body, and the second day after admission they became pustular. On the third crusts began to form especially on face. These rapidly dried up until on the fifteenth day they had almost all disappeared, when an acute parenchymatous nephritits supervened. He had a convulsion and Temp. rose to 103.8 but on the seventeenth it dropped to normal. He was discharged on the twenty-second day with the nephritis much improved. Later examination showed no sign of kidney disease.

Eva T. Epileptic. Age 14 years. Vaccinated successfully. Admitted Aug. 29. Had a history of headache and nausea. Eruption was beginning pustular stage, more advanced on face than on body. She had been isolated on account of vomiting three days previously. There was one papule on palm of hand, three on soles of feet and but few on face or body. The eruption was mild and dried up rapidly and was attended with very little malaise. On the eighth day the crusts were largely off the face. She was discharged on the eighteenth day. When admitted this patient had an evening temperature of 102 axillary which dropped the next morning to 98, rose to 99 .4 and remained practically normal throughout the attack.

Joe M. Also vaccinated, presented a mild form of the disease.

Summary of the 21 cases of variola and varioloid, 17 of which were among inmates and 4 among vaccinated nurses, all the latter being varioloid.

Prodromes were noticed in four cases, three of which were among nurses.

No prodromal rash was observed. First eruption appeared on forehead or upper part of face in 16 cases among children and one among nurses.

In the other cases, first noticed on body in three instances and on one the first papule appeared on leg. This case subsequently developed a severe eruption and is somewhat pitted on face.

It appeared on palms or soles or both in 17 cases out of the 21. Pustules changed to crusts on an average in about 24 hours. Among the nurses there were very severe prodromal symptoms in three out of four, Temp. ranging from 103 to 106. In the 4th case, no prodromal symptoms and the only ones were slight headache and the appearance of a mild but characteristic eruption.

All cases among nurses were comparatively mild after the prodromal symptoms except in one case who had been vaccinated three times but not successfully. The first time a year preceding the attack, again two months preceding and during the prodromal symptoms. In this case the eruption was more severe but was not attended by marked malaise after the prodrome.

The eruption in all the successfully vaccinated cases was mild without exception and in the unvaccinated severe.

In the vaccinated cases desquamation was complete in 10 to 19 days and in the non-vaccinated 20 to 53 days.

Quarantine in a detached hospital was very rigid. The food was carried by one of the nurses from the general hospital and placed in dishes on a table about 25 feet from the building. The dishes had been sterilized in boiling water and the table wiped off with a 5 per cent carbolic acid solution. In no case did the nurse from the general hospital come in contact with the dishes or the table.

One nurse from the general hospital did this duty from June 13 to June 28, when she complained of vomiting, headache, backache, dryness in the mouth, etc., and the malaise continued with lessening severity until July 1st, when an eruption appeared on forehead, palms and wrists, and the diagnosis of smallpox was made. This nurse in no way came in contact with the patients in the general hospital previously mentioned, who had been removed on June 12. From this fact and from the fact that no other case developed from this source of contagion the probability that the disease was contracted in the general hospital is practically nil.

When the quarantine hospital was first opened the weather was very hot and dry, strong wind blowing from the S. W. a great deal of the time. The windows of the quarantine hospital were left open as much as possible on account of the heat. The table previously mentioned was exposed to the wind coming from the direction of the building. As the hospital stood on the edge of a bluff, the only approach was from the leeward side. Consequently, since the other sources of infection were practically excluded it seems probable that the contagion was carried by the wind.

These cases developed directly after an epidemic of chickenpox and this

fact made the differential diagnosis a very important matter. The strong differential point was the absence of rise of temperature and malaise in all the cases of chickenpox, about 30 in number.

On the contrary in the small-pox cases the morning and evening temperatures were recorded in every case. The more severe character of the eruption and tendency toward successive crops in chickenpox was also noted; there being no marked tendency toward successive crops in any of the small-pox cases.

Two of the more severe unvaccinated cases having pulmonary tuberculosis presented interesting complications.—

Case 7. Henry H. A low grade boy, 21 years of age, of the Mongolian type of idiocy, who had been steadily failing for several months.

He had pulmonary tuberculosis and had been in the hospital for some time and was very weak when he contracted small-pox.

Below is a summary of the physical examination of his lungs on March 21, 1901.

Percussion note high pitched, tubular breathing in left lung in upper lobe with areas of whistling rales towards the sternum, small cavity near sternum in the third interspace.

In the right lung dullness was not as pronounced at the apex as on left. There was however consolidation with tubular breathing in upper lobe. In the lower lobe there was dullness merging into liver dullness.

Rales heard over both lungs both anteriorly and posteriorly.

On July 3, a diagnosis of small-pox was made and he was sent to quarantine hospital with evening Temp. of 100.6 and marked malaise.

The following morning Temp. dropped to 97 and he was in a very weak condition (strong stimulation). The evening Temp. rose to 102. On the second day after admission the eruption was in the vesicular stage (patient failing), developing into the pustular stage on the 3rd day. Crusts began to form on the face on the sixth day and eruption appeared almost confluent all over body and face. Desquamation on face was not complete on the sixteenth day. He was discharged on the forty-eighth day.

After the nineteenth day his temperature was about 99 in the evening with morning remissions of 98 for the remainder of the time he was in quarantine hospital during which later time his general condition steadily improved. He was detained in general hospital till Dec. 3rd, when he was discharged in good condition with the tubercular process much improved. He has not been under treatment in the hospital since, but has continued to gain on the grade. Within the past few months he has been losing in weight but as the age limit of this type of idiocy is from 20 to 25 years this condition is to be expected as he is now 24 years old.

Below is a summary of physical examination of lungs on April 4, 1904.

Percussion note somewhat dull and higher pitched in left apex, with cavity about size of quarter in mid clavicular line under first rib and few moist rales heard in this area. Hyperresonance over lower border of lung. Heart retracted from chest wall. Right lung, slight consolidation in upper

portion with higher pitched note throughout. Breathing somewhat tubular, unable to find rales either posteriorly or anteriorly.

Diagnosis—Fibroid Lung. Cavity previously mentioned as located on left side near sternum in third interspace replaced by slight hyperresonance.

Case 2. Lydia W. Age 18 years. Epileptic who had pulmonary tuberculosis and had previously been in fair health, was sent to quarantine hospital on June 4th with slight prodromal symptoms. Eruption was in beginning vesicular stage and evenly distributed over body involving palms of hands and soles of feet. Patient was suffering marked malaise. Evening Temp. was 100. Second day after admission morning Temp. 99 and evening 98.6, patient feeling more comfortable.

There were old tubercular lesions in the apices of both lungs but for eight days temperature remained practically normal.

Eruption became generally pustalar on the 4th day, crusts began to form 6th day and on the 8th crusts were all over body and eruption was drying rapidly. On 10th day crusts were off to great extent. Patient however scratched thus delaying desquamation. Temperature rose to 101 in evening, she became restless and evidently suffered acute pain and marked malaise. Evening temperature ranged from 101 to 103 for six days. Muscular twitching around mouth and this increased in severity. Breathing became rapid and labored and restricted on left side. Dullness over upper lobe of this side and became more marked and extended to 4th rib, nipple line.

Abdomen became slightly tender and tympanitic. Stools foul smelling and light colored. Unable to find evidences of Bright's disease, urine remaining clear and light.

On the 16th day had a convulsion of petit mal type. Pulmonary symptoms became more marked and on 19th day desquamation was complete and patient could have been released from quarantine had it not been for tubercular symptoms. Morning Temp. 102.6, evening 104. On the 20th day morning Temp. 104.2, died at 3.15 P.M. Diagnosis, acute exacerbation of chronic tuberculosis.

In both cases the tubercular process was made more acute by the small-pox. The 2nd case however had epileptic seizures at last and could not be stimulated as strongly as the first and according was not able to survive.

JOURNAL OF PSYCHO-ASTHENICS

VOL. IX MARCH, 1906 No. 7

A quarterly journal devoted to the education and care of the Feeble-Minded, and the care and treatment of Epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D., - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D., - - - - Waverley, Mass.
A. W. WILMARTH, M. D., - - - Chippewa Falls, Wis.
M. W. BARR, M. D., - - - - - Elwyn, Penn.
GEO. M. MOGRIDGE, M. D., - - - - Glenwood, Ia.
A. R. T. WYLIE, M. D., - - - - Faribault, Minn.
E. R. JOHNSTONE, - - - - - Vineland, N. J.
ALEXANDER JOHNSON . - - - - - New York, N. Y.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Postoffice at Faribault, Rice Co., Minn., as second-class matter.

EDITORIAL.

CONTAGIOUS DISEASES IN INSTITUTION LIFE

When people are housed in large numbers, the question of protection from contagious diseases deserves serious consideration. The condition of intimate association favors the rapid spread of these diseases, while on the other hand the control of the population is so complete that the medical staff have an advantage in handling an epidemic over the health authorities in charge of an ordinary outbreak.

Most well regulated institutions require a certificate of recent vaccination in each case admitted, and make very careful inquiries into the possibility of exposure to other contagious or infectious diseases. Of course, exposure to cases unrecognized while enroute to the institution cannot be guarded against, but by the usual precautions indicated above, and the additional one of thorough disinfection of all clothing brought with each new arrival and the requirements of a thorough soap and water bath, the danger of in-

troducing disease from this source is reduced to the minimum. Employees, over whom the administration does not have such complete control, are the usual media for the introduction of these diseases, and even if the management of an institution should require as a condition of employment that the applicant and his clothing should undergo the same cleansing processes required of inmates, the fact of more or less frequent visitation with relatives and friends outside, involves the constant possibility of introducing bacteria.

Of all infectious diseases the spread of measles is the most difficult to completely control because of its extreme contagiousness at the first onset of the disease. Among the feeble-minded it is noticeable that the Mongolian type are especially susceptible to severe attacks of this disease. In fact, measles seems to vary in severity according to the individual, and one is never safe in predicting a light epidemic because a few of the earlier cases are not very sick.

Small-pox, thanks to vaccination, can usually be kept out. The prevalence of this disease at the close of the Spanish American war and the existence at the same time quite universally of chicken-pox, presented an unusual danger. The article by Dr. Huxley in another part of this issue illustrates an epidemic at this time, which presented some very interesting features. First, the fact of accurate diagnosis. There had been quite a number of cases of chicken-pox all of which were carefully isolated with reference especially to the possibility of mistaken diagnosis, but in no case was there reason to change the same. It is, therefore, worthy of note that a case should have been recognized at once as small-pox in which the subsequent history justified this diagnosis as well. Others followed, the histories of all of which are given in the article referred to.

The second noticeable fact is that the first four cases of small-pox were mentally low grade males that we had decided not to vaccinate because of the danger of infection, from it being practically impossible to control and protect the vaccinated arms on idiotic and low grade persons.

The next point I wish to notice was, evident infection of a few cases by the action of the wind, which blew almost continually for a week or more from the direction of the building used for the care of these cases, toward the main building. Children became affected in the wing of the main building nearest the contagious hospital, although the latter was situated about five hundred feet distant.

The thoroughness of which the process of isolation and disinfection were conducted are worthy of attention as being, in the opinon of the writer, almost ideal. Imagine a building containing about two hundred custodial boys from which a case of small-pox has been taken. These boys and their care-takers must be kept entirely isolated from the population of all other buildings on the ground as well as from outside residents. They must have their three meals a day, their clothing and bedding must be laundered at regular intervals and in case of a large percentage of the inmates it must be done daily. The delivery of food and supplies to this building must be done without any individual contact, for safety lies only in the assumption

that every person and article in the building as well as the interior of the building, is a source of infection. Likewise refuse taken from the kitchens must be buried or disinfected by final boiling. The delivery man in charge of the laundry, must take to the infected building a disinfected bag, into which is placed the bag at the building containing the infected clothing and bedding, the delivery man himself wearing a gown which had been saturated with antiseptic solution to neutralize any material conveyed through this method of handling infected material.

Then again after a sufficient time had elapsed, without the development of new cases, to justify disinfection and opening of the building, the physician in charge meets a proposition requiring heroic action. The clothing and bedding of the two hundred inmates and all their care-takers must be thoroughly disinfected. Every individual, including inmates and care-takers, must pass through an antiseptic bath which must be so thorough as to include the hair and the scalp. Every article of furniture, clothing and bedding must be thoroughly and completely disinfected and every wall and floor surface as well. The furniture, bedding and wall surface can be treated by fumigation, clothing and bedding by fumigation and boiling. This, however, must all be done with the population left in the building. To do this one story of the two story building was vacated by the population and thoroughly fumigated. Then the inmates were given their bath and transferred to that story leaving every removable article behind, after which the vacated story was given the same treatment. As during all this time this population had to be fed, some idea of the number of points of possible conveyance of contagion that had to be watched, can be imagined and it readily can be understood why the medical officer in charge had virtually no sleep or rest for thirty-six hours. It is needless to add that following this through work there were no more cases of small-pox.

Perhaps the most common of the major diseases is diphtheria. In fact, the bacteriologists have shown us that bacilli of diphtheria exist in a good percentage of noses and throats constantly, particularly among school children, whether in or out of public institutions, and this fact would seem to explain the impossibility of tracing the source of this disease in so many cases. This fact also makes it rather difficult to determine with precision how long cases with so-called infected throats should remain isolated. The presence of these bacilli alone or without clinical symptoms, does not seem to be sufficient justification for isolation, and their continued presence after clinical symptoms have disappeared may have no special significance. The use of antitoxin has shorn this disease of its former terrors, but it is nevertheless, important to properly diagnose the disease promptly in order to give the treatment in time. It is the custom in the institution with which the writer is connected, when a case develops with clinical symptoms suggestive of diphtheria, to have a culture made immediately, and if the microscope confirms the diagnosis, to have swabs taken from all throats and noses of the persons in the class from which the patient was taken and immediately isolate all that are positive, and thoroughly fumigate the departments,

clothing and bedding where these patients live. This simplifies the handling of these cases and makes it unnecessary to quarantine whole buildings. The cases removed are, of course, kept in isolation until the microscope justifies their discharge. Where the institution is provided with a laboratory equipped with incubator and microscope, and a trained bacteriologist is connected with the staff, the handling of diphtheria even in the large institution population, especially if the latter is divided into a goodly number of separate groups in different buildings, is comparatively an easy matter. It is well, however, to have the culture examination made by the health authorities at the same time, not only as a verification of the laboratory work in the institution, but to insure confidence on the part of the public.

It is gratifying to note the very general activity of the medical profession assisted by the leaders from all professions, in educating public sentiment concerning the care and treatment of tuberculosis. Of this and other infectious diseases in institutions we may have more to say later.

NOTES AND ABSTRACTS

IN the Journal for Sept. 1902, page 30, was printed an abstract of an article by M. Bra on the presence of a parasite in the blood of epileptics. Recently he has reviewed the literature and brought the subject down to date. *His article acted as a stimulus for a number of observations. †M. Besta examined 125 fresh specimens and found no organism in any of them. In 375 cultures he twice found staphylococci, once coli, once tetrag and once an undetermined spirillum. He thinks that the result of Bra and Chausse are due to auto-infection and errors in technique.

‡Lannois and Lesieur examined the blood of epileptics during the attacks and their results were wholly negative both by cultural methods and on direct examination.

Ghiliarowsky, of Moscow, examined the blood of five epileptics both during the attacks, and in the interval, he made his examinations by means of fresh and stained specimens and by cultural methods. In five examinations he found a micro-organism corresponding to that described by Bra, in some cases getting pure cultures. His inoculation experiments were negative. He inoculated under the skin and not in the blood stream. On examining the blood of patients during and between their periods of maniacal excitement he finds a diplococcus exactly analogous to the one of epileptics, as shown by Bra, so he concludes that the micrococcus of Bra is the micrococcus agilis, and has nothing to do with the pathogenesis of epilepsy.

Tirelli and Brossa have examined a number of cases of epilepsy and have found some bodies similar to the ones Bra has described but from the difficulty in staining and of making cultures they have considered them as

*Recherches microbiologiques sur l'Epilepsie. Arch. de Neurol. Dec. '05. †Ricerche batteriologiche nel sangue degli epilettici. Rev. sperius. di freniatria 1902. pg. 307. ‡Examen bacteriologique du sang des epileptiques. Soc. Medic. Des Hospitaux de Lyons'03, Nov. 3.

fragments of the morphologic bodies of the blood.

The objections of his critics, M. Bra finds, are based upon three principal points, the rareness of positive findings, the difficulty of staining, and the difficulty of getting cultures.

That the positive findings on blood examinations have been few, the author admits. This he thinks is due in part to faulty technique and again, many preparations are necessary before one is successful. Also one will fail if the examination is made too long a time after the attack. Bromides, he finds, do not produce negative findings.

That the organisms are stained with difficulty by the simple methylene blue stains is true, but they are stained easily by carbol-thionin.

That it is difficult to make cultures is true of all blood organisms. The difficulty here he thinks is due to coagulation, so in making cultures he defibrinates the blood and sows in neutral or alkaline bouillon. The growth appears as a greyish tint in the bouillon which falls to the bottom of the tube and appears as a fine greyish deposit.

In the inoculation experiments the authors have failed since they used too small quantities, 20–30 cc. often being insufficient. The virulence of the cultures varies considerably. Some of them in doses of 10 cc. will kill in 48 hours, with others the rabbits live from eight to ten months. Autopsy shows atrophy of spleen and gall bladder, and the blood of the heart shows pure cultures of the neurococcus. Vaso-motor disturbances are noted after injection of cultures. This shows itself as an ischemia of the ear. This is soon followed by a dilatation of the vessels, then again by an ischemia, etc., the changes taking place rapidly.

Contrary to his earlier conclusions the author finds that serum diagnosis is not yet practicable since normal serum will produce an agglutination.

BOOK NOTICES.

LA CLASSIFICATION DES ENFANTS ANORMAUX. DR. O. DECROLY. GAND. 1905.

The author reviews somewhat at length the various attempts that have been made to classify defectives. While realizing the difficulties of the problem he offers the following:

I. Irregulars due to intrinsic causes.

II. Irregulars due to extrinsic causes (family and social surroundings.)

In the first class he distinguishes (a) in which the irregularity or defects lies in the vegetative functions, (b) those in which the irregularity or defect lies in the functions of relation (motor, sensory, affective and mental defects).

He wishes to make his classes large enough to include all children who for want of special training would become a charge on or a danger to society.

Those in whom the irregularity exists in the vegetative functions he divides into (a) those who have physical deformities and anomalies independent of the neuro-muscular system (deformities, monstrosities, etc.) (b) those who have disturbances of general nutrition and chronic diseases of the organs of

the vegetative life independent of the neuro-muscular system (dwarfs, giantism, myxoedema, albinism, acquired or congenital disease of the digestive, circulatory or respiratory systems, etc.)

Among those whose irregularity is found in the functions of relation he finds four groups.

(a) Of the senses, defects or anomalies more or less grave of sight, hearing, muscular sense, as blindness, amblyopia, cataract, myopia, partial deafness, psychical deafness, etc.

(b) Of movement, paralyses, contractures, tics, chorea, convulsions, speech defects, etc.

(c) Mental irregularities, as of attention, memory, association, judgment, imagination, volition, etc. Here one can distinguish those in which there is insufficiency as the feeble-minded, idiot, imbecile and the backward child, and those in which the trouble is deviation or loss as hysterics, neurasthenics, psychic epileptics, precocious dements, etc.

(d) Affective irregularities where the trouble lies in the moral or social reactions. Here belong the unbalanced, the moral insane, the vicious, the inverts and a great number of criminals.

11. The irregulars from extrinsic causes. Here the environment, especially the social environment, is the causative factor. This also acts upon those in group one either in enhancing their defects or in bringing to view new ones.

This classification the author claims fulfills the following desiderata:

1. It does away with the various and numerous terms which have so many different meanings which have been employed heretofore.

2. It is based upon a complete examination of the child in a way to determine the whole of its trouble and its relations.

3. It permits a more precise classification, a more accurate diagnosis, a surer prognosis and a more appropriate treatment.

THE EDUCATION OF DEFECTIVE CHILDREN. S. P. GOODHART, M. D.

THE DAILY MEDICAL, FEB. 24, 1904

A plea for special schools so that "the defectives shall have the advantage of home environment and parental, family, and friendly encouragement."

JOURNAL OF PSYCHO-ASTHENICS

VOL. X JUNE, 1906 No. 4

A quarterly journal devoted to the education and care of the feeble-minded, and the care and treatment of epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D. - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D. - - - - Waverley, Mass.
A. W. WILMARTH, M. D. - - - Chippewa Falls, Wis.
M. W. BARR, M. D. - - - - - Elwyn, Penn.
GEO. MOGRIDGE, M. D. - - - - Glenwood, Ia.
A. R. T. WYLIE, M. D. - - - - Faribault, Minn.
E. R. JOHNSTONE - - - - - Vineland, N. J.
ALEXANDER JOHNSON - - - - - - New York, N. Y.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Post office at Faribault, Rice Co., Minn., as second-class matter.

MINUTES OF THE ASSOCIATION.

The thirtieth annual meeting of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons, was opened at the Iowa Institution for Feeble-Minded, Glenwood, at 2 P. M., June 14, 1906. The association was called to order by the president, Dr. Mogridge. Communications from absent members were read.

Members present: Doctors Fernald, Wilmarth, Murdoch, Smith, Johnson, Keating, Kutnewsky, Whittington, Mogridge, Velura Powell, and Rogers; Messrs. Weissbrodt and Carroll; Mrs. Murdoch, Mrs. Powell, Miss McLean, Miss Gundry, and Miss Smith. There were present as visitors the assistant physicians, teachers and steward of the Iowa institution; Miss Ella Frazee of the South Dakota School, and Misses Johnston, Stewart, McRoberts, Horton, LaSelle, Park and Dillingham, teachers of the Minnesota School for Feeble-Minded; Miss Elloise Rogers and Arthur Rogers, of Faribault; Dr. J. L. Bolton, Lincoln, Neb., with wife and daughter; Dr. Geo. H.

part of the normal growth of the mind, and that its failure to develop constitutes a mental defect. The question of heredity and its vast, causative influence has become a very prominent factor in our preparation for the future. For years, it has been asserted in the gatherings of those experienced in the care of dependent and defective people, that the opportunities for this class to unnecessarily burden the taxpayer must be curtailed. The feeling is extending, that, with many a one whom we educate to the limit of his capacity and send out to make his own way, we have launched a boat without a rudder and we have no knowledge as to where it may land.

More or less radical steps have been taken to retain the custody of children unfit to assume a proper relationship to the general community where there is no adequate controlling element in their own home, or where their tendencies place them beyond the control which can be exercised in ordinary family relations. It is generally accepted that the state may assume parental care over the orphan, or over children whose parents cannot, or will not, give them proper care and training. The state may assume the care of the insane, and continue it until they may be safely released without detriment to themselves, or to the general community. In my own state, the law extends this parental control to the feeble-minded, assuming that no more illegal trespass on personal liberty is made in this than in the other classes cited, the power of discharge being placed in the hands of the governing board and superintendent who are assumed to be the best qualified to judge in the matter. They are not expected to relinquish their oversight when the welfare of the child, or community, forbids such action, but may, at their discretion, continue it indefinitely.

Contests over this stand naturally arise. Parents, in some cases having little, or no more intelligence than the children, cannot see the wisdom of such a step. Relatives who will turn a child from their home in its tender years, develop an affection for it which would be touching in the extreme if not so evidently interested, as soon as they consider the child of some labor value. It is difficult to convince the jury or judge, before whom such a case may come, that a child is unfit for discharge, when, as occasionally happens, it takes the experienced superintendent or institution officer some time to determine this point. The probability of such contest is my excuse for again bringing this subject before your consideration at this time.

The question that arises in legal contests, however, is generally whether a a child is fit for discharge as such contests in court are rarely, or never, instituted except over the highest grade imbecile. We must, then, demonstrate the defect. We cannot obtain much aid by pleading physical stigmata of degeneration. Though valuable to the trained expert, a skilled attorney will aim to lessen the value of such evidence even if he does not, through ridicule, completely discredit it.

We find now under our care the habitual thief where precept and punishment cannot establish the control of his natural desires by a weaker will. We find the young woman whose powerful instincts subordinate her moral

control and whose good intentions give way before each renewal of temptation.

I use the term, feeble-minded, as expressing the condition of the so-called imbecile in this paper, because it is used in some laws to express this meaning in distinction to the condition of idiocy. It is noted in the title of this association, founded by officers of institutions for the care of "feeble-minded and idiotic persons." In some states, the laws relating to our institutions define them as caring for "idiotic and feeble-minded," or "idiotic, epileptic and feeble-minded persons." I think, further, that the word, feeble-minded, conveys this condition somewhat better to the mind of the average person, and it is more agreeable in his ears as it is not used as a term of reproach, as imbecile is.

The right of the feeble-minded to as high a degree of education as he may be capable of acquiring, to broaden his usefulness and consequent happiness, is not to be disputed. If, however, it results in his acquiring a more pleasing address, makes him more attractive in appearance and conduct, and increases his capacity for evil, and we must then discharge him to marry some one with no higher intelligence than his own, our school-training has proven a detriment rather than an advantage.

The placing of the power of discharge in the hands of intelligent management, as is the case with the insane generally, has already been inaugurated and the state says to the feeble-minded, who, unrestrained are a constant menace to the progress and welfare of the community, "Nothing essential to your comfort and happiness that can be reasonably supplied you will be denied, but you must be placed where your conduct can be watched and controlled, as a wise parent watches and controls his immature child." It is often useless to plead with friends to leave their children with us on the ground that the public safety demands it. Many are incapable of appreciating such a sentiment. I once wrote to the sister of one of our wards who had been an illegitimate mother five times before the age of twenty-seven years, and asked if the public safety did not demand that we watch over the sister. She replied and asked what I supposed she cared for the public. This stand means more or less frequent bringing of our children before judge or jury on process of habeas corpus.

It is necessary, in such case, to be able to show plainly which of the more essential mental attributes are wanting, or defective, and the bearing of such want, or defect, on the future welfare of the subject. Since we claim that the subject is unfit to go unrestrained in a community, we must be able to draw the line with reasonable certainty between the fit and the unfit, and to demonstrate on which side of the line he belongs.

There are three simple mental attributes essential to a reasonable mental development. First, will-power, essential to the development of attention and the control of acquired knowledge, which must be

exercised from the first development of the ego to the end of life. Second, memory governing the reception of impressions brought to the brain through the sensory organs, their storage and their reproduction as thought. Third, judgment governing the estimation of the relative value of memories. Insufficiency of either of these three cerebral functions necessarily means mental weakness. It goes without saying that lack of the power of the cerebral cells to recognize impressions, or to retain and reproduce them as needed, is fatal to normal mental growth. On the other hand, a good memory, especially along certain lines, is not inconsistent with a very evident condition of imbecility. Barr has laid special stress, in his work, on the memory power in the higher grades of imbeciles.

Judgment is latest to develop and tends, in normal people, to increase in activity through life until senile change occurs. In our higher grade of imbeciles, its development is prone to stop at a relatively early age and they remain livelong children. It handicaps their efforts to obtain a livelihood when brought into competition with the average wage-earner. It prevents their obtaining an adequate conception of right and wrong.

The controlling element of the mind is the will. If it cannot control the mind, securing concentration of attention, adequate progress is impossible. The mind may have been stored with memories sufficient for its needs; the judgment may be sufficiently developed to distinguish between right and wrong. Many moral imbeciles can recite a list of right things and wrong things, with all the accuracy and with about the same degree of intelligence as a phonograph. They not only remember these things, but have a fair appreciation of their ethical value, showing the presence of both memory and judgment. They will show what is probably genuine regret for their misdeeds. When, however, their weak will is again summoned to resist these same promptings of their instinct for acquisition, or their animal emotions, it is unequal to the task. This is what distinguishes the moral imbecile from the so-called bad boy. The will of the latter may be strengthened by precept and discipline until reasonable self-control is acquired, but, with the moral imbecile, discipline produces only temporary effect, and the required self-control is never gained. Watching the growth of the high-grade imbecile child, through his physical development into adult years, I have been interested to note how the passion for theft awakes at the age of thirteen to fifteen years, in boys who had primarily manifested no special tendency in that direction and the difficulty, or impossibility of its suppression.

When a case is in contest, to decide as to whether it shall be regarded as feeble-minded, or not, on what grounds shall it be decided? Should not the question be the fitness of the subject to meet and deal with the ordinary conditions which surround the individual in the communal life we lead?

The conditions are simple. He should be able to maintain himself and those he may have placed dependent on him. He should have sufficient judgment to appreciate the personal and property rights of others, and sufficent will-power and self-control to respect them. These are conditions which are

readily understood by all, whether familiar with the characteristics of the feeble-minded, or not. They are essential points, I believe, in determining the discharge, or retention, of the high-grade imbecile.

They are the points which alone will be weighed by jury, or jurist, when the final decision comes to their hands.

DISCUSSION.

The President: The paper is now before the meeting and I think that it should meet with a liberal discussion. The question as to whom the term, feeble-minded, may be applied comes to all who have to deal with these children. There is an idea on the part of outsiders that the management of institutions receives into these places children who do not properly belong there—those who are not feeble-minded. Therefore, it occurs to me that this is a very timely subject to discuss at this meeting, and I am sure we shall all be pleased to hear something from the members upon it.

Dr. Fernald: Mr. Chairman, I think the question as it is practically applied to us is not so simple as Dr. Wilmarth has, perhaps, indicated. I am impressed with the fact that in our special work we have gone ahead of public sentiment and ahead of formulated, scientific descriptions of moral defect in practically isolating and confining many cases of moral defect. That is to say, the clear-cut ideas we, as alienists, have of certain phases of moral defect, are not formulated in the text-books on mental disease, and are not recognized by the courts.

In our institution we are compelled to receive cases of moral imbeceility committed by a probate court. We have been impressed with the fact we were accumulating a very large number of young women from twenty to thirty, committed to us by the courts, or perhaps, from the girls' reformatory, as criminals—criminals who had never committed a crime —upon the assumption that they were mere irresponsibles; that they were sources of danger to the community. These women are practically sent to us under a life-sentence purely upon a theory that they must inevitably do harm.

The Secretary: Are all your cases committed by the court?

Dr. Fernald: No, only the custodial cases and such cases as I have mentioned. We have within a year or two noticed the despair that developed when our female patients began to understand that a commitment meant that their prospects of discharge were practi-

cally gone, and when we must, in effect, say to recently admitted female patients, "it makes no difference how well you behave; you may stay here a dozen years; you may lead a perfectly straight and commendable life, but you will never be discharged." We have, therefore, begun a different policy. Within the past two years we have discharged perhaps ten or twelve cases who had been with us for five to ten years, and cases, who, according to our preconceived ideas ought to have gone wrong immediately—either to have illegitimate children or to lead a life of shame. To our surprise none of these girls have gone bad. On the contrary, every one of them has managed to get along.

We have one or two cases who have been under probation by the board for a year, and who, I think, will be discharged very soon. It seems to me that these women should have a chance—they certainly should not be sentenced to life-imprisonment upon a theory that they may do harm.

Dr. Rogers: Mr. Chairman, I would say that Dr. Fernald's statement of his experience suggests a matter that I intended to refer to later, viz: a plan to create a proper jurisdiction for cases where, upon the evidence presented, it was easily demonstrable that certain children should be kept under life-care. I never have believed in any form of commitment to our institutions for feeble-minded, in the first instance, but do believe that there should be some process by which those who are demonstrably moral imbeciles and whose conduct is such as not to warrant their being discharged, could be put under some form of commitment, or life-guardianship. I think the Doctor's experience rather strengthens that idea. It is pretty hard for us to tell in advance what people are going to do. I think that the wisest men and women in the world of experience are often mistaken in their prognosis in cases of this kind but there is no doubt that a good percentage of what I would term "borderland" cases should have definite, positive and permanent restriction.

Dr. Wilmarth: If there is no more discussion, I would like to add a word or two. I am afraid that my method of reading, may, perhaps, have conveyed an idea other than my paper would justify. I do not think I advocated life-long restraint in the first instance, in any set case, but that it be left to an intelligent management to decide who should be discharged and who should not. Now our cases are not solicited by us. They are sent to us, in the first place, by judges, jurists who are

supposed to be acquainted with the law, as children who are being publicly cared for. Our children are committed by process of law. Parents, we find, sometimes bring suits in certain cases. We have a boy—at present involved in a contest—who assaulted his mother before being sent to the industrial school. We have to keep him by himself, part of the time, because of his brutal assaults. Now we have to meet a jury on the question of his detention. It is not of much use to go before a jury of ordinary intelligence with the definition endorsed by this associatation. We must have a simpler definition and we must demonstrate whether that boy should go free or whether he should not; how he is mentally weak, if he is mentally weak. It will not be a difficult point to establish when one understands it. I would not, myself, endorse the commitment of any child for a life-sentence, but merely during the period of childhood; but I would object to a discharge by incompetent authority. Although all our children are committed to us, we never hesitate for a moment when wise parents wish it, to discharge a child.

I do not know as the matter has been brought before the courts for decision as to how they would distinguish moral delinquency from mental weakness. I believe that a child should not be committed by the courts permanently. I think it would not be justified. At the same time, I do think the restriction of his personal liberty during the developmental period to the extent of compelling him to submit to the training and discipline of our institutions, is not only justified, but very desirable. A child may commit a petty offence and is immediately deprived of his liberty. If he repeats it, he is put in perpetual imprisonment and the law recognises that as just and equitable. Placing him in the community where he will have every opportunity of doing wrong, and where there would be no more restriction over him, is a procedure not just to the community from which he comes, even if it is to him.

It was on these lines that I prepared this paper, and it was because of doubt as to what would be done by the courts that I proposed this definition.

The President: I would like to ask Dr. Whittington a question. In your state (Missouri) have you any life-detention—legal detention?

Dr. Whittington: We have two or three forms of admitting patients. We receive our patients on the order of any judge of a court

of record. They can be removed from the institution at any time that their parents or guardians see fit to take them away. We also have a class of patients known as "part pay" patients, that come practically under the same head. They pay what they are able and the state pays the balance. And then we have a large class of patients that are committed by our courts, over whom we have absolute control. Their support comes out of the state treasury, the counties paying no part of it. Their original admission is upon an order of county court and when once committed they are practically committed for life, unless, as Dr. Wilmarth's case, the superintendent and board see fit to discharge them from the institution.

Dr. Wilmarth: I do not want to monopolize the time, but in the matter of the control of the insane, the time of their care is indeterminate. It depends altogether on their fitness for discharge. The law recognizes the feeble-minded—classes them rather with the insane—so it is difficult to see how any more harm could be wrought in one case than in the other by having this time of care indefinite and indeterminate.

The President: It seems to me it is a most important matter that every child that comes to our institutions should receive fair and just treatment, and it is equally desirable that society at large should be protected. In Iowa we have no legal commitment whatever. Every child is sent here upon a voluntary request of the parent or guardian, or, if there be no guardian, it is mandatory upon the county officials to make an application for it to be admitted to the institution. There is nothing in the law which prevents that child being removed from the institution by the parent or guardian, or by the county officials. So that we are not required by law to detain our children and, therefore, have not met the same difficulties that Dr. Fernald has. On the other hand, with just the class of children that the Doctor refers to—of bright girls—we have had some sad experiences. In some cases, perhaps, they have done well. But in some cases they certainly have not done well have not been well cared for nor received the protection that was necessary and that they should have had. So that here, at least, it has come to be rather customary to advise against the return of any feeble-minded child to society. We think it is unwise and injudicious and we use our endeavors, in the way of persuasion, to prevent it. While generally unsucessful, yet, as I have said before, experience has

generally proven that it would have been wiser to have left the girl in our care than to have removed her. It does seem to me that it is quite an important matter,—this matter of the detention of these children.

Four years ago the legislature extended the age limit at which we might receive females to forty-six years, making the age limit at which a girl may be admitted from five to forty-six. After being admitted, however, they may remain indefinitely. They may remain for life if the authorities will permit them to do so.

[Dr. W. H. C. Smith next read a paper on Lack of Professional Knowledge Concerning the Feeble-Minded. By his request the paper is not published though the discussion is merged with that of Dr. Wilmarth's paper as it all deals with classification in its broader sense.—Editor.]

Dr. Murdoch: In regard to the subject of Dr. Smith's paper, it seems to me that we should do all in our power to encourage medical men to visit our institutions. The lack of professional knowledge as to the feeble-minded, is due, of course, largely to the fact that this subject is given but little attention in medical schools. Medical men when graduating know little of mental deficiency; know little of insanity, but more probably of the various phases of insanity than the subjects of idiocy.

We can, by inviting associations of medical men to come to our institutions, do a great deal to interest them in this subject. I was very glad to hear that at the meeting of the American Medical Association at Boston last week, Dr. Fernald brought into the meeting a large number of illustrative cases and held a clinic which was largely attended, before that vast body of medical men. And if we would take every opportunity to bring medical men and the profession at large in touch with our institutions, we would do a great deal of good to them and to ourselves.

I have a great deal of trouble through misunderstanding of the character of the inmates to be received by our institution. A great many cases of insanity are referred to us through a mistaken idea that feeble-mindedness is just a mild form of insanity. It seems strange that medical men should make such mistakes, but they do. And whenever there is a meeting of physicians near our institutions we should invite them to come to see us and show them cases and show them our schools.

Dr. Rogers: Mr. Chairman, I wish to add in that connection

that the best clinic, the only really good clinic of our work that I ever saw and heard in my life was Dr. Fernald's, where he gave just such a lecture to a class of students from Boston. It would pay all the members of our association to attend such a clinic.

Dr. Bolton: Mr. Chairman, I would like to call attention to another phase of this question of professional knowledge. The feeble-minded children represent an extreme, and between this extreme of the feeble-minded and the bright children that fill our schools, is a considerable class who cannot by any means be called feeble-minded, and yet they are backward, distinctly backward.

Every teacher spends a larger portion of her time dealing with backward children than with the bright ones. In fact, the bright ones outrun their methods nearly all the time, and the teacher finds herself occupied with the dullards rather than with the others. I think, so far as I know, that I have been alone in advocating lectures and clinics for the benefit of those persons who are training for teachers. And as a large number of our students who are going out to teach in the public schools are now beginning to include classes upon mental diseases, I point out to them, so far as I can, the general symptoms of mental weakness, and exhibit, if it is possible to do so, the methods by which these feeble-minded children are trained. The effect is very good, as I see it. In fact, the enthusiasm for that work grows and is going to exceed my ability to deal with the number of students who will shortly appeal for that kind of work, for the work is open to general admission in the university.

I hope that in a few years our normal schools and university training schools will make something of this work—make it a part of the training of teachers for our public schools. Anything that we can do in that way is going to broaden the horizon of the teachers, enlarge their sympathies and make more intelligent the methods that they have to use in teaching.

The point seems to me to be this: that in teaching feeble-minded children the only difference is that the methods must be much more slowly and systematically employed. A Single presentation is enough for a bright child. A dozen presentations are required for a dull one and a hundred or two are often required for a feeble-minded one.

Dr. Johnson: We certainly all agree that there is a lack of professional knowledge in regard to this question, but I think we also

must agree that there is a great lack of knowledge on the part of the laity, the public at large. And for that reason I am very glad that Dr. Bolton has taken the trouble, during the last three or four years, to bring his class from the university to our institutions for the purpose of showing the students the effects and defects of our children. I believe that this will not only impress it upon the minds of the students, but that they in their turn will impress it upon the minds of people at large. In that way we may hope that a great deal of good can be accomplished by this work. I do not know that the question, whether or not it is practicable to have the epileptic with the feeble-minded, is expected to be discussed right here. I think, perhaps, we have different views in regard to that matter. Probably the superintendent who has a thousand children at his institution where, perhaps, twenty or twenty-five are epileptics, has different views from the superintendent who has about four hundred, as we have. I believe that we are as competent to take care of our epileptics at our institution as we would be with a special colony for them. I believe that we are capable of giving as good treatment, and perhaps achieve as good results with the few that we have as might be accomplished by placing them in an institution by themselves.

However, I do not know that this belongs here, but what I want to get at is this: the duty of this association should be not only to inform the profession, but the people at large as well, for the great rapidity with which this class of cases is increasing may call for different laws in our states to be enacted.

Now in our state we have the same form to go through with as they have in the state of Iowa. We have no legal commitment. A child is simply sent to our institution at the request of parent or guardian, or of the county authorities, and there is absolutely nothing said as to when it shall be removed, and we have had the very same sad experience as Dr. Mogridge has had in regard to that question. For that reason I certainly feel that the time has come when something ought to be done. I believe that the great majority of the feeble-minded should be made to remain at the institutions, at any rate until such time when, in the judgment of the superintendent, they can be safely discharged.

Dr. Smith: I have nothing to say excepting that I would like to know the sentiment of all these superintendents present who are giving

their thought and energy and life to the work—I presume they could answer it easily. If we could only have Dr. Wilmarth's question answered as to who should be called feeble-minded—have we ever known of a complete cure of a congenital imbecile, or idiotic child? Have we any right to make such a claim? Should we, in our conversation with the profession at large, discourage such claims being made? from the standpoint of honesty and justice to parents whose all is bound up in an unfortunate child? I feel deeply on this subject because I presume I have had one hundred and fifty children brought me —probably more than that— with the dictum of their family physician —I could name some of the physicians who have made such statement —that all they needed was correct treatment — I grant that we do not know the correct treatment — that all they needed was correct training. This large number of children I have met in consultation, with just that dictum of the family physician that all they needed was the right sort of treatment to be transformed into normal children capable of going into the walks of life and meeting their obligations as normal citizens.

Dr. Rogers: I do not know how others may feel, but I do not see why there should be any hesitancy about commitment in a question of that kind. If I understand the condition at all, it is that the condition of the feeble-minded is one of defect. It is not a disease. If we use the term "cure" we apply that naturally to disease. We may modify or improve them. I think it is largely a question of the use of a term.

The President: In other words, Dr. Rogers, you say, "once feeble-minded always feeble-minded?"

Dr. Rogers: Yes.

Dr. Murdoch: Mr. President, I do not know of any way to draw a definite line between a backward and a feeble-minded child. We, as I understnd it, now consider those children who are so defective that they can never be trained to take a place in the world, as feeble-minded; and those who are backward and who may be trained so that they can take a place in the world, we speak of as backward children. Now we cannot draw a definite line between these two classes. There are all grades of deficiency between the bright children and the extreme "below grade" idiots. We must give all children who are susceptible of any training at all, such training as we can, and use our best judgment in determining which ones are capable of going

into the world and which ones are not.

I, personally, feel that the pendulum is swung too far towards the custodial care of feeble-minded children. The original work among the feeble-minded was education, with the idea of sending them out into the world. Lately we are talking a great deal of permanent custody of feeble-minded children. I think we have gone just a little bit too far in that direction and the tendency will be to go more on those border-line cases and give a few more of those children a chance, and if, as Dr. Fernald said, after one trial, or possibly two trials, they are not capable of adjusting themselves in society, we will find it out.

Dr. Rogers: I agree with Dr. Murdoch on two essential points. When we speak of definite lines we have got to speak of cases, because they do not lap. We haven't any short lines.

Dr. Smith: It seems to me you have the case of Hellen Keller in mind.

Dr. Wilmarth: It is difficult for the child to meet the conditions confronted in rejoining soceity. If the judgment of the superintendent and management is that there is a chance, it might be well to give the child that chance. But if it is manifestly unable to meet the conditions of life then why send it out to almost certain wrong? We speak of one chance, or two chances, as not so very serious. Possibly not, except for the consequences that might follow. Initiation into life in the world is a serious thing to contemplate even once and if we know that the subject we send out is absolutely unfit, it seems to me to bring this subject to a head. As Dr. Murdoch said, there is no sharp line. If there were there would be no problem at all. It would be a question of measurement. It is a straight question of judgment and on whose judgment we should rely.

Dr. Fernald: It seems to me that that would be putting upon the superintendent of an institution certain judicial functions which are not within his proper province. We have tried, this winter, to get some legislation which would allow us to refer these cases to the court—to allow these cases to be referred at intervals of a year or two, and it seems to me it puts us in a much more dignified position to go before the court and present our evidence, our opinions and our beliefs, and allow the court to make the dicision. To my mind it is very undignified for a great institution to be placed in the position of willfully detaining a person about whom intelligent people differ.

Dr. Keating: I did not intend to say anything on this subject but Dr. Fernald's remarks brought to my mind a conversation in which he spoke of a girl in his institution, of her power on all with whom she came in contact. I remember meeting Dr. Fernald in New York, in 1898. He was a strong advocate at that time, if I remember correctly, of the permanent care of the feeble-minded. I was rather surprised, but agreeably so, to find he had changed his views considerably. When I first started this work, ten years ago, I had very strong views on the matter but I have also modified them. I am opposed to any children being committed to an institution except those who have been convicted of some criminal act. In Maryland none of the children are committed. They are sent to us, first by the parents, or the guardian, or some society who acts as a guardian. We then become the guardian and at the age of twenty-one years we report the condition of each child to the circuit court. If we find that a child is a proper subject to be released, why, we say so; if we think it is a proper subject for permanent care, we say so, and the Commission of Review go over the case, examine the child, its history, all the circumstances connected with it, and report to the judge of the circuit court, who reviews the finding of the commission, and commits the adult, if in his judgment he should be committed. It seems to me that is the ideal way. If a child comes to us before seventeen years of age and we keep it until it is twenty-one we certainly should be in a position to know whether it is a proper one to go into the world and take care of itself, or not. Now the courts have not any hesitancy in appointing a trustee or a person to take care of children; no hesitancy in committing an insane person who is insane.

If we have a moral imbecile, or a person who will become a burden on the community, or who is not responsible for his acts, I would give him a "life-sentence." This term I object to, and I only use it in quotation. I think it an unfortunate term. I would like to hear from the superintendents of all the institutions because I think this is an interesting subject and there is no way of getting at the exact form, or mode of commitment, except in this way.

Dr. Johnson: I would like to ask Dr. Keating, how many, or what per cent of his inmates, in his judgment, are fit to be discharged —turned out to run at large now?

Dr. Keating: We haven't any at all. I had three discharged

last year who are making a good living; one, as a bugler on a United States battleship.

Dr. Thomas: I have had a little experience in this matter. Now, as it seems to me, you doctors know that when your feeble-minded children get cured, or get out of being feeble-minded, they can get out. You don't need any law. You can only keep them so long as they are feeble-minded. They will not run away but they will go to court by habeas corpus as is their right. Now I do not think there is anywhere any desire to keep them, certainly not in our state. It seems to me that there isn't much danger of keeping bright, capable people in feeble-minded institutions.

Dr. Carroll: I have been opposed to the thought of experimenting with the feeble-minded child and for that reason I would not agree with Dr. Fernald. We have a number of cases in our institution that have been a problem for some time. And we will always have these problems in the institution. We have the moral imbeciles with the question undecided whether to keep them for life or whether to turn them loose until they commit some crime and the reformatory or the prison keeps them for life. I do not believe it is a good thing to turn out an inmate who I am not positively certain will get along. Now Dr. Keating speaks of some of the children that have left his institution. In your own state is a graduate from our institution. He left it in 1896 and he is now holding a position in one of your state institutions and receiving sixty-five or seventy dollars a month. He visited me a couple of weeks ago. Now I do not believe that boy was feeble-minded. I do not think he was even a border-line case. His was the case of a backward child. He had not had the chance that the average boy has and his environment had not been what it should be.

I have half a dozen cases now that I would like to dispose of, but I am just as sure that if they leave our instiution they will enter some other, as I am of anything. I think that we ought to keep them. I do not believe as Dr. Fernald does that if you give them a chance and they don't turn out well, no great harm is done. We had at one time a class of about fifteen girls in our institution that were taking a course in domestic economy. We thought of turning those girls out to become servants in private families. There was not one of those girls that did not have a bad family history—just as bad as it is possible to be. I broke up the domestic class and all those girls are still in the

institution and I propose to keep them there. I do not believe that I have a right, nor do I believe that the state expects me to experiment.

Dr. Murdoch: I would like to take exceptions to what Dr. Carroll has just said in that he does not believe that he has any right to turn the child out unless he absolutely knows that he can get along outside. I do not think we have any right not to turn the child out unless we feel morally certain that he will get along outside.

Dr. Fernald: Dr. Carroll's point would prevent the graduation from college of a large portion of the classes.

Dr. Carroll: Yes, and perhaps that would not be a bad thing. If our experience teaches us anything, it teaches us to know the children that are under our care. The man who has been in an institution a sufficient length of time and has watched these cases will, I think, have no trouble in determining whether or not a child should stay in the institution.

Miss Mattie Gundry: I want to say that I think when a child is recognized as a backward child, that it hasn't any business in the institutions for the feeble-minded; that when children are feeble-minded and have all of the characteristics of feeble-mindedness, and always have had them and always likely to have them they ought to be kept there. But I think when we recognize a child as merely backward it really has no place in the institutions for the feeble-minded, and I think if it were not admitted a great deal of this trouble would not come up. I think too many children are admitted who could get along just as well in other institutions. In public schools possibly, where there are special teachers.

Miss McLean: I would like to ask Miss Gundry how many public schools are prepared to take care of backward children?

Miss Gundry: I think there are a great many children simply backward who, with training, do develop and sometimes become great people. It is said that Edison was a very backward boy and he surely developed into a wonderful man. If he had happened to be around where some of us were he might have been picked up and put into an institution for feeble-minded.

Dr. Fernald: I think I am taking up more than my share of the time, but I do not want to be misunderstood. No one believes more than I do in the necessity for permanent, life-long care and education

of the great majority of feeble-minded persons. I believe there is a small, a very small percentage of border-line cases, some of them so-called cases of moral imbecility, who should not be sentenced for life (Dr. Keating objects to that term) in early childhood without an opportunity for legal revision of that sentence and it seems to me that the bill of rights of most of our American commonwealths really make any such sentence unconstitutional. I believe the rights of the individual are guaranteed by law in such a way that an act of the legislature making such a commitment possible would be declared unconstitutional.

Dr. Wilmarth: I do not believe that there is any state that has a law that prevents the review of a case in court. The right of habeas corpus, I believe, is supreme in all courts in all states.

Dr. Whittington: While my experience with the feeble-minded has been short, I have paid very close attention and I find that the class of inmates just spoken of do not belong strictly to the feeble-minded. There is in all large cities a class of incorrigible boys who are moral delinquents and who are bright and intelligent and will progress in school but are thoroughly unreliable morally. While this condition might constitute feeble-mindedness in one sense, I think that time, age, experience and discipline will bring those boys out. I think they cannot be classified as feeble-minded after they reach a certain age. But I agree with Dr. Smith in that a typically marked and well defined feeble-minded child can never become a normal human being. It matters not what the cause of feeble-mindedness may be, whether traumatic, whether it is brought about during gestation, or from injury at birth, or delivery, or whether from some injury, or from starvation of cells and nerve centers. I do not believe that where there is a deficiency in these nerve centers that these children can ever be brought up to normal human beings; but I do believe that the class of moral delinquents are not strictly feeble-minded persons. I believe they can go out in the world if they have been disciplined and take care of themselves. Nearly every single one of them. One will show an aptitude for one thing, and one for another; some will show some special ability in an industrial line. I believe that such inmates should not be restricted, but should be allowed to go out into the world to earn a livelihood. I believe most of them can safely be discharged from the institutions and that they can make a good living in the world,

stand the bumps and knocks in the world as well as a great many people who have never been in an institution.

The President: Perhaps we have drifted away from the original paper in the discussion, but it seems to me of considerable interest. While there appears to be a difference of view, there is not so very much difference in our thoughts of the matter under discussion. There are children that creep into all large institutions that probably should not be there. These children, as Dr. Fernald says, should be given a chance. I think it is reasonable and safe, I think we all agree to that. But they are a very small percentage of the total number of children that come to us. The class that we want to keep are what we call the high-grade imbeciles, the fairly capable imbeciles, who are, however, imbeciles and always will be such and if there is reproduction, the issue will be imbecile, so that I do not think that we differ very much. The backward child will come to us sometimes. Not very often. As a rule, under our plan, the parents send the child and parents are not very apt to say, "we have a feeble-minded child". In fact they bring their child and tell us there is nothing the matter with it. It is not feeble-minded it is just a little backward or peculiar. So there is our safeguard in receiving, in Iowa at least, these children. We do not receive very many who should not be here. In a number of years of observation I think I could count on the fingers of one hand the children that ought not to have been brought here. So that while we all admit that there may possibly be some children in our institution that should go out, and that we would like to dischar , nevertheless, the great majority, the great mass of the children in the institution here are of such mental character that we can feel, indeed we know, that the institution is the best place for them. I think we are all of one opinion in regard to that.

THE PSYCHIC TREATMENT OF MENTAL DEFECTIVES.

J. M. Murdoch, M. D., Polk, Penn.

IF, from the title of my paper, you expect a learned scientific discussion of the abstruse problems of psychology or psychiatry you will be disappointed by the few simple thoughts I shall present under this rather imposing title.

We of the medical profession are proud of the advance which has been made in our field within the last score of years. Research in our own and allied sciences has furnished us with powerful aids by means of which we can make diagnoses of wonderful exactness and call to our aid therapeutic measures hitherto unknown, the curative and more notably the preventive results of which are truly marvelous.

The thyroid treatment of cretinism and the localization of the lesion and surgical treatment of focal brain disease, conditions which particularly interest us, are among the most brilliant triumphs of drug therapy and surgery. Physical means of treatment, such as hydrotherapy, massage, gymnastics and electricity are all powerful instruments used in the cure and prevention of disease and all are of use in preventing and correcting the effects of impaired nutrition, the primal cause of most mental defects.

But the physician of to-day does not confine himself to material or physical aids and it is not by material or physical agencies that we can best aid the mental defective. Whatever our opinion or belief concerning the bond of affinity between the mind and body, there can be no doubt as to the concomitance of cerebration and psychic manifestation. Even in an act of the purest intelligence the psychic manifestation is associated with vibrations in the cerebral cortex. To render these possible there is a flow of blood that is more abundant as intellectual effort is more intense; elevation of temperature results; in short, there is combustion of organic material. Here we see how mental condition depends upon and may be affected by physical agencies; how, by increasing the cerebral blood-supply and improving the condition of the blood the power for mental activity is increased. Here, also, we have the clue for a directly opposite procedure—the acting upon the physical by mental agencies; for, granting the concomitance of mental activity and brain activity, by causing the individual to reason, cerebral or brain activity with the exercise of the cortical cells and the increase of the flow of blood through the cerebral arteries is the inevitable result.

To bring about all the improvement possible in the mental defective we must use both physical and mental agencies. In suggestion we have a mental agency of great value.

According to Holleck, "Suggestion is the introduction within the individual of a practical belief which is spontaneously realized," and the moral art of suggestion he defines as the art of "modifying an individual by persuading him that he is, or may be other than he is. This art is one of the most important appliances in education. Education, indeed, should be directed to this end: To convince the individual that he is capable of good and incapable of evil in order to render him actually so; to persuade him that he can do better in order that he may be better. A mistake is often made in thinking that only hypnotic subjects are controlled by suggestion. All are under its influence. The only reason why motor ideas do not always cause actions in their direction is because inhibition, the result of instinct or

former experience, may hold them in check. Suggestion is specially powerful with the feeble-minded and it is a matter of the greatest importance what ideas we bring to bear upon them and what ideas we exclude.

No superintendent, physician or teacher in an institution for children, and this includes institutions for feeble-minded children, is suitable for his position if he has not this power of impressing upon the minds of the children, by precept and example encouraging suggestion which will direct the mental activity of the child in proper paths; which will build up character, not destroy hope; which will set up active cerebral vibrations that awaken cerebral areas which sleep in what seems to be a deathlike slumber, causing the mind to unfold and develop, not shrivel up and whither as may be the result of improper suggestion.

I fear we have ascribed too much importance to bad heredity and have taken a too pessimistic view as to the development of feeble-minded children. Let us remember that there is no marked dividing line between so-called normal and feeble-minded children or between the various subdivisions of feeble-mindedness. There is no such line and since all, or at least all the higher grades of the feeble-minded are susceptible of more or less development there must be the possibility of developing many of the children who come to us to such a degree as to make permanent custody unnecessary. In order to bring about the best results in the development of the children under our charge we must be hopeful of improving them. We must see that all who come in contact with the children give out encouraging suggestions, encouraging them to greater mental activity. What is of as great importance is to avoid discouraging suggestions which destroy hope? A discouraging suggestion may be a remark made to a child, or about a child in its bearing; it may be the exhibition of, or calling the attention of others to some mental or physical defect within the hearing of the subject.

Dr. Bu Boise, of Berne, in speaking of the great hospitals in Paris states: "At the command of the chief of the staff or of the internes, they (the patients) begin to act like marionettes, or like circus horses accustomed to repeat the same evolutions. The dream or suggested fancy of these poor patients has been respected, and the exhibition given to physicians who are strangers always follows the same program. The regularities of the phenomena observed is due to the suggestion which the physician, either voluntarily or involuntarily, exercises."

The child with the pernicious habit of "Dervish spinning," echolalia, mirror writing, or who emits a noise which bears a fancied resemblance to the call of some animal, or who repeatedly goes from one grotesque gesticulation to another, is not only on exhibition in the side-show or cheap museum but too often in the hospital, institution or school. If these faulty habits are to be corrected they must be ignored not encouraged and the suggestion of more correct habits impressed upon the subject. Improvement is not to be brought about by calling attention to the defect but by suggesting something better to take its place. Do not permit the child who

makes a noise resembling the bark of a dog to be nicknamed "poodle," or permit any nickname which in any way calls to mind any physical or mental defect.

Parents with the best of intentions will tell the physician in the presence of the defective child of all his shortcomings; what a trial he has been at school and at home; the discouraging statements his teacher has made about him; how different he is from his clever brothers and sisters and how they have tried in vain to correct his faulty habits, talking before the child in such a manner as to destroy all his self-respect and suggest the utter hopelessness of any effort he might put forth.

By making discouraging remarks in regard to the children under their charge and within their hearing, many ignorant attendants, nurses, and I fear, some teachers and physicians give rise to discouraging suggestions which destroy hope, retard progress and actually produce a shrivelling up of the nerve-cells within the cerebral cortex. Impress upon all who have to do with the care of the children that they should never make a discouraging remark in regard to a child within hearing. If nothing encouraging can be said say nothing within the child's hearing even if the child is so defective we do not think he will understand.

The higher aud middle grades of the feeble-minded are wonderfully influenced by the suggestions of those who have gained their confidence and in whom they recognize mental superiority. It is almost pathetic the confidence and faith with which they accept the statements of those in whom they trust.

The child should, and can easily be made to feel that the physician or teacher or attendant does not regard him only as an inmate or pupil but as a friend whom he desires to help. We should make the child feel that we are so anxious to see him improve that it would be very unkind of him not to do so. When the child feels this bond of sympathy he is already well on the way toward a higher development. Where, between teacher and pupil or nurse and child, there exists this bond of sympathy the child, instead of feeling that he is shut up in an asylum, has a true pride in the institution or school and though, on account of the degree of mental defect, he may not take a place in the great outside world he will at least be lifted up to a higher degree of mentality and self-respect and be made infinitely more happy and useful by the encouraging suggestions imparted to him by those he recognizes as his friends.

DISCUSSION

Dr. Rogers: Mr. Chairman, I think one matter brought out by this paper can not be emphasized too much. We all understand the detrimental effect of discussing the merits or demerits of a child in its presence—the development of self-consciousness. And I think it is perhaps particularly true in our very large institutions that we in a

measure counteract our best work by permitting this. It is not only very difficult to impress upon new people the necessity of avoiding discussion of the children in their presence but we become careless in that respect ourselves. I am very glad Dr. Murdoch presented this phase of the subject.

Dr. Smith: Right in the line of this suggestion I want to mention a little item in my own experience. When I go away from home I endeavor to send a postal card or something to each member of my family of children—I mean our unfortunate family—and I did this on one occasion to a boy about twenty-three years of age. He was considered a very bright boy. In fact he is so bright that visitors calling to see me and entering into conversation with him frequently wonder what he is there for. And I signed this particular postal card sent from the East, "Your Friend, the Doctor." I did not have any thought that I was considered anything but his friend, yet he was so delighted with the idea of "Your Friend, the Doctor" that he took it to all the boys and said, "see, the Doctor signed that postal card, 'My Friend.'" When I came back he spoke of it to me. Ever since that time I have had more attention from him.

Dr. Milroy: I feel just a little out of place here upon the floor. I am a good listener enough and enjoyed the proceedings greatly this afternoon. I want to ask one question if it is not out of place. I am not a resident of Iowa, but I am a near neighbor of this great state and know something of its institutions and laws.

My attention was called, as perhaps that of others, sometime during the past winter, by newspaper reports, to a bill that was introduced into the legislature of Iowa at Des Moines providing for the removal by the chloroform route, if I understood correctly, of certain individuals who are, by officials designated in the bill, found to be permanently and fatally diseased; and also, if I remember correctly, of certain ones that are permanently incapacitated owing to mental weakness. And it seems to me, so far as the people are concerned with whom this association is more particularly occupied, that the two things are in line. That is to say, the authority of the law to prevent defectives being born, and the authority of the law to put them out of the world after they are born.

I wanted to ask whether your association has ever given expression to any opinion or has given any advice to the public along

either of these lines. Of course it impresses one at first thought as a very radical procedure and probably, to most men, would appear absurd and altogether out of place, and yet, I think it is a serious topic and so I should like to be informed.

Dr. Rogers: Mr. Chairman, in reply to the doctor I will say that the matter of surgical interference has been discussed quite a number of times in this association and there is some literature on the subject. A paper was read last year by Dr. Risley, of Philadelphia, on that subject—a very carefully thought-out paper. The situation may be summed up, I think, at the present time in about this way: The marriage of feeble-minded persons is but a very small source of the supply of defective people. A much smaller source than is usually realized. Those who come to our institutions are, of course, already protected, and the public is protected from them. So far as any aggressive action is concerned it could properly have reference only to certain individuals presenting definite reasons for such action. In individual cases surgical interference has been had in different institutions.

Dr. Milroy: Is there any authority in law for such a proceeding?

Dr Rogers: Only the authority that any surgeon has by reason of his professional knowledge and judgment.

Our foreign brethren are absolutely unable to comprehend the propriety of discussions on this subject and they ignore them wholly. In a number of instances there has been an effort made to have the association commit itself to some general policy, but so far they have been unable to do that.

Dr. Mogridge: In connection with that, if all the feeble-minded children that we have in these institutions in the United States were wiped out of existence, there would be another crop of feeble-minded children in a few years to care for.

Dr. Fernald: In your institution I venture to say that not five per cent of your inmates are the children of feeble-minded persons. On the contrary, the parents of your children as you see them, fairly represent the population of your state. They are from all classes of society. I think we all agree with Dr. Johnson in his very forcible presentation of his topic. But that is a matter which is not to be settled by act of parliament. It would be impossible to discharge today seventy-five per cent of the inmates of this institution. I had an illustration last week. An Italian mother whose child

had been admitted recently, appeared with an Italian lawyer and the Italian consul and a retinue of friends to demand the discharge of her child. I said, "You may take him now," and she took him out on the lawn, looked him over and begged for his re-admission. She merely wished to know that she could have the boy. It seems to me that that illustrates our situation. I was impressed by Dr. Johnson's problem as to what he should tell the father of that boy. It would be a brutal thing to destroy the father's hopes in regard to the possible development of the child. It would be a needless injury to the father's feelings and if you were entirely frank he probably would take the boy home, and the boy would be deprived of the only development that is possible.

It is impossible to keep a certain proportion of our patients in the institution. A certain number of these cases are bound to be taken home by the parents or friends. They cannot be retained. I believe we weaken our position by insisting that some sort of a dragnet must be put over the community and every defective forcibly taken away and supported and maintained by the state. It should not be necessary for us to explain that there is no desire on the part of the managers of institutions to advocate forcible, life-long detention for the majority of feeble-minded persons. The permanent care of the majority of feeble-minded persons becomes a necessity as the result of the death of the father, or the mother, or of friends.

Mr. Thomas: The question, as this gentleman tells us, isn't how large a percentage of the feeble-minded is due to parents, the question it seems to me is, what are the offspring of the feeble-minded? Are they not practically all feeble-minded?

Dr. Rogers: If both parents are feeble-minded, yes; but frequently one only is so and this modifies the stock.

Mr. Thomas: Up in our little school we have two feeble-minded mothers who have four or five children. Now it seems to me there is the whole question—the disposition of feeble-minded parentage. I believe the feeble-minded are like the Kentuckian's description of whiskey. One fellow said, "This is awful bad whiskey;" the other responded, "Oh no, my friend, you are mistaken, all is good, but some is better." We are all feeble-minded, but some are more so. If it is practically true that feeble-minded parents have feeble-minded children that settles that question of their control.

Dr. Wilmarth: I do not recollect at this time that I have ever seen feeble-minded parentage that produced other than feeble-minded children, and I have seen feeble-minded mothers, many of them, whose children were all feeble-minded.

Dr. Rogers: There have been mothers of children in our institution who were markedly feeble-minded while the children were much brighter—bright enough to be classed in higher grades than other children. However, that does not interfere with the general proposition that we are all inclined to house and protect the individuals in whom there is a tendency to reproduce defective offspring, or to establish families of a lower grade of mentality. But the marriages in a community, as a rule, are almost never between feeble-minded. The feeble-minded party to the union is the mother, but in some of these unions the disreputable fathers are bright men but morally depraved and their children are often quite bright. That does not lessen our duty to protect the woman from just such relations. That is what we are all trying to do.

Mr. Thomas: Well, what I wanted to say was hat it seems to me clearly to be our duty to set a standard where people should enjoy the privileges of life, marriage, motherhood and parentage and all that, but if there is a likelyhood of having feeble-minded people to care for as a result, it seems to me it is not only our duty but a kindness to prospective parents for us to interfere. I do not believe we can be too careful on that line.

Dr. Wilmarth: And to the unborn children.

Mr. Thomas: Yes, certainly to the unborn children. I think it is the duty of the state to anticipate such results. Now these women in our institution who have children there, could go out and earn a living all right. They could get three or four dollars a week for domestic work, but you see they would be back in greater numbers in a year or so. There is the trouble.

Dr. J. K. Kutnewsky: I am in the kindergarten in this line of work and do not want to attempt to impress my views upon the older members, but Mr. Thomas spoke about certain feeble-minded parents and children we have. The family shows that there have been feeble-minded children for several generations back. We had an application for the father and mother and the three children but before the applications

were approved and we got around to receive them, the father, fortunately or unfortunately, died and lessened the number by one. But the history of that family is that the father and the mother were both feeble-minded and the father has a brother that is feeble-minded. Information from friends of the family showed that for several generations back there were feeble-minded children in the families. If the tendency is upward there must be something to raise the standard. Possibly one parent has a stronger constitution than the other and is mentally higher than the other. And some of the children—it is so in all animal life—some of the progeny will take to one side of the family and some, to the other.

Dr. Rogers: Now we do not know very much about the laws of heredity. I believe thoroughly, directly to answer Dr. Mogridge—which I think Dr. Fernald started out to, but did not finish—if every defective child in the institution and in the state and in all the states around about us were killed, absolutely disposed of, and no others brought in from other states, in a few years we would have practically the same percentage we have now of feeble-minded. Because the majority of cases come to us from people who are not only normal but very often brilliant. In fact, we are apt to have a feeble-minded person come to us from a family where one parent, at least, is unusually brilliant. If you will look over the community you will find a feeble-minded person in each of many of the best, most highly educated and refined families of our land. Now there are cases just as recited by Dr. Kutnewsky and Mr. Thomas. But they are exceptional cases. We want to get after those cases and prevent the reproduction of people of that kind. I want to make that plain and I think we are working along just the right line. Where we are apt to make a mistake is to attempt to lay down laws from our limited experience. Our information is exceedingly scant on subjects of this kind. I do not think it is possible to produce any legislation from the knowledge we have at the present time that would be of much benefit in restricting marriage. Minnesota now has a law intended to prevent the inter-marriage of feeble-minded, or epileptic people, or the marriage of either one to a normal person, but it is a dead letter so far as protection is concerned and epileptics are constantly assuming the marriage relation. It perhaps is of value as a means of education, and a conscientious person determined to do what is right is sometimes affected by it. I have known that to occur in a few instances, but on

the other hand I have known of marriages that the law was supposed to prevent.

Miss Gundry: A very short time ago, in looking up the subject because I had been asked, I found I had children in my institution whose parents were very distinguished people—justices of the supreme court, United States senators and consuls in foreign countries and people of that sort.

Dr. Mogridge: In Iowa we have a law which permits the annulment of the marriage where a person at the time of marriage was incompetent to enter into a civil contract. I would not be surprised if there is such a law on the statute books of every state. We have a child in this institution whose parents were both feeble-minded. The matter was brought to the attention of the county attorney and the marriage was annulled. They were separated, and they have been kept apart since. We have the child here, however, as a result of the marriage. That is as far as the state of Iowa has gone in the enactment of laws to prohibit the marriage of people affected, but it is certainly in its effect as prohibitory as any other law would be.

Dr. Heinsheimer: I would like to ask as to the best information concerning the percentage of feeble-minded resulting from the marriage of relatives. I would like to hear a little on that.

Dr. Wilmarth: I think that has been looked into a great many times in these institutions and the percentage of consanguineous marriages has not been large. It has not the vital importance that is sometimes attributed to it. If there is mental weakness in a family it should not be increased by inter-marriage. I do not think the statistics show any bad effects from inter-marriage in healthy families.

Dr. Murdoch: The result in those cases is that if there is a mental or neurotic defect it will be increased by doubling up of that special defect. If the parents are normal, if we can imagine two perfectly normal individuals marrying, no matter what their relationship may be, their children will be normal. It is not the fact that they are related, but because they have neurotic tendencies in the same direction that produce defective offspring.

Dr. Rogers: My impression is that the average consanguinity in the cases reported is less than six per cent and that does not necessarily mean that consanguinity causes the defect.

Dr. Murdoch: In that connection it would be interesting to know

what per cent of the parents of children in the public schools, for instance, are related. We would have to have two sets of figures to draw a reasonable conclusion.

Dr. Mogridge: Yes, in order to establish anything from that, we would have to know what the entire percentage was in a particular community.

Dr. Johnson: I am glad that so much discussion came from the papers. As I recall it, we have four children at our institution from one family in which the mother is distinctly feeble-minded, and so are all the children she ever had. I am led to believe that is practically the condition that you may look for all the time. When Dr. Milroy asked the question in regard to chloroform and one thing and another, the thought came to me that it is remarkable how ready the physicians that visit our institutions are to give us advice in regard to a number of our very low grade children. I remember a year ago when the Nebraska State Medical Society met in Beatrice and I invited a number of the physicians out to our institution, that, after looking through some of the worst classes we had, one of the physicians—a physician I have known a great many years and who had practiced medicine for forty years—remarked, "Doctor, do you want me to suggest a sure cure for those cases?" I said, "yes." He replied: "Two grains of morphine hypodermically." I asked him if he cared to administer the dose. "No," he said, he did not care to. But in all seriousness most of the physicians that have visited our institution have said in substance that it is certainly too bad these children have to live, and we ought to put them out of the way, either by morphine or by the chloroform route or some other route.

Dr. Mogridge: They do not like to be the executioners, however.

Dr. Johnson: No.

---

*THE SEGREGATION AND PERMANENT DETENTION OF THE FEEBLE-MINDED.

A. JOHNSON, M. D., BEATRICE, NEBRASKA.

I SUPPOSE an apology is due on my part for trying to present a few thoughts on a subject that is so well known to every member of this as-

*See preceding discussion.

sociation. I believe that every member will agree that the segregation and even permanent detention of at least the great majority, if not all of the feeble-minded, is the proper procedure. On the other hand, when you and I discuss this matter with parents or friends having children at an institution, or who are about to bring their loved ones, we find that we do not always display good judgment if we present this matter too forcibly.

Imagine, if you please, a father bringing his boy at the age of eight or ten years to your institution. In the father's mind, he is a very dear little fellow and, aside from the fact that he was a little late in cutting his teeth, talking, and even walking, the father can see little that is wrong with the boy. He expects him to be educated and trained in a general way so that he will become not only self-supporting, but a useful member of society, marry, and perhaps have children of his own. It has been a great struggle on the part of both father and mother to decide to give up their child and place it in the hands of entire strangers. And, if the above referred to results could not be obtained or at least reasonably expected for their child, they would rather keep him at home.

You look the boy over hurriedly as the father must have your opinion before he leaves the institution and, although the father thought his boy was nearly normal, you find that he is small for his age, that he has large, thick lips, with mouth open a great deal, thick tongue, abnormally large ears, and a head that is rather flat and narrow through the temples, but the forehead is very prominent; he talks quite a little when he feels like it, but is often stubborn and will not talk at all. You learn from the father that the boy did not begin to cut his teeth until he was about a year and a half old. He did not walk until he was three years old, and that he was very slow in talking. He has not been to school a day in his life, neither has he been to church or Sunday school. What are you going to tell the father you can do for his boy? It certainly would not be wise at this time to tell him that his boy would have to remain in your institution all his life, and yet, by the experience you have gained from so many similar cases, you know that, in all probability, the child will never develop so that it would be wise and to the best interest of the child, of the family or of society, ever to discharge him from your institution.

While it may seem strange to some of you that a subject of this nature should be presented at this meeting, I am of the opinion that it can be discussed with profit by this association, for we must remember that many people do not believe as we do in regard to this question and it occurs to me that no one is better qualified from personal experience to present this matter to the people at large than we who are devoting our entire time to the care, training and developing of the feeble-minded.

I suppose most of you have seen a reprint of the paper read by our worthy member, Prof. E. R. Johnstone, at the National Educational Association last year. If you haven't, you surely want to hear what he says on this subject. Prof. Johnstone says among other things: "The place of the

school for feeble-minded has long been obscure; of the first one hundred people met upon one of the streets of any of our cities, probably ninety would not know there are such people as the feeble-minded and, possibly, only one of the remaining ten would really know anything of them, and yet, one in every five hundred of the population is feeble-minded, and there is hardly a line of thought into which the feeble-minded person does not enter, either as an object of love in its truest sense, a spur to greater endeavor, a subject of scientific research, a drag upon the progress of a community, or as a positive menace to society."

If what I have just quoted from Prof. Johnstone's paper is true, and I believe every word of it, it is time the public were informed of the condition of affairs and I believe that this should be the mission of this association.

Under this head I would like to include not only the feeble-minded in general but the epileptic as well, for I believe it is quite accurately estimated that of the total number of epileptics, sixty-eight to seventy per cent are either imbeciles or idiots. Only about two per cent are normal and the remaining difference is made up of insane and disagreeable persons in general. In fact, they are the people that should not only be segregated but permanently detained at an institution.

The question of segregation of the mentally incompetent and epileptic has been in the minds of many people not only in our own country but abroad, for many years, and a great deal along this line has been accomplished since the days of Drs. Itard and Seguin in France, who, I believe, were the first to undertake the education of the idiot. In our own country, the principle is firmly rooted in the minds of many of our people that it is not only a privilege but a right that every child should be accorded means for the full development of all his faculties and that this principle applies not only to children born of strictly native parentage but to all feeble-minded alike.

The work of segregation and state care for the feeble-minded has extended so that, if I am not misinformed, there are now twenty-six public institutions for the feeble-minded in twenty-one different states. I am very glad that so many of our western states have recognized the necessity of caring for their feeble-minded, when some of the eastern states that are much older as well as much wealthier, have seemingly neglected their duties in this respect.

The rapid increase of this class, together with the knowledge that has been gained by the study of heredity and nervous diseases in general, have made it clear to those engaged in the work of caring for the mental defectives that it is necessary for the public safety to cut off the supply. This cannot be done by segregation alone; hence, permanent detention must be resorted to. We have learned by experience that the great aim of our work is not cure, for that is impossible. We cannot cure that which is a defect not a disease. The term cure as it is generally understood does not apply to the mental defectives.

As far as I have been able to ascertain, practically all those engaged in the work of caring for, teaching and training this class, are of the opinion that none of those discharged are capable of self-support in all that the term implies. They never become fit for full citizenship although they may be capable of doing many things quite as well as a normal man or woman. The higher powers, intellect, reason and judgment always remain markedly and noticeably at fault, and without intelligent and kindly supervision they inevitably become dependents or worse.

In a paper written by the late Dr. Powell on the care of the feeble-minded, he says: "The specialist of today has virtually abandoned the belief that the school-training of the imbeciles can ever develop and restore them to safe citizenship. We do not now regard the school-training of the feeble-minded child as an ultimate aim and end, but as the education of the normal child is only preparatory to a participation in the activities of life in the great world, so we propose by similar means to prepare the mentally weak for the exercise of their limited activities in their circumscribed world —in the institution life—after the preparatory period is past during which each one is fitted to fill his niche according to the degree of his ability."

Mr. Alexander Johnson in his report of the committee on Colonies for Segregation of Defectives, read at the conference of Charities and Corrections at Atlanta, Georgia, three years ago, said among other things: "It has long seemed to many people that the wisest course the state can take is to separate all true degenerates from society and keep them in carefully classified groups under circumstances that shall insure that they shall do as little harm to themselves and their fellows as possible, and that they shall not entail upon the next generation the burden which the present one has borne."

A minority report was presented by Mary E. Perry and as I believe this report to be very important, I shall take the liberty of quoting it also: "While agreeing in the main with the report as presented by the chairman, I take issue with him in thinking the millenium must come before we are able to put a stop to the fast increasing population of the epileptic and feeble-minded. I believe the remedy is largely in the hands of this conference and instead of reporting annually the statistics and the facts about these people, it would now be well to prepare our several states to call to their assistance the surgeon's knife to prevent the entailing of this curse upon innocent numbers of yet unborn children. It is time we looked this question squarely in the face, and as it is humane, so it is righteous, if resorted to for the sake of the child."

JOURNAL OF PSYCHO-ASTHENICS

VOL. X JUNE, 1906 No. 4

A quarterly journal devoted to the education and care of the feeble-minded, and the care and treatment of epileptics. Published under the auspices of the Association of Officers of American Institutions for Feeble-Minded.

EDITOR-IN-CHIEF:

A. C. ROGERS, M. D. - - - - Faribault, Minn.

ASSOCIATES:

W. E. FERNALD, M. D. - - - - Waverley, Mass.
A. W. WILMARTH, M. D. - - - Chippewa Falls, Wis.
M. W. BARR, M. D. - - - - - Elwyn, Penn.
GEO. MOGRIDGE, M. D. - - - - Glenwood, Ia.
A. R. T. WYLIE, M. D. - - - - Faribault, Minn.
E. R. JOHNSTONE - - - - - Vineland, N. J.
ALEXANDER JOHNSON - - - - - - New York, N. Y.

Address: JOURNAL OF PSYCHO-ASTHENICS, Faribault, Minn.

Entered at the Post office at Faribault, Rice Co., Minn., as second-class matter.

MINUTES OF THE ASSOCIATION.

The thirtieth annual meeting of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons, was opened at the Iowa Institution for Feeble-Minded, Glenwood, at 2 P. M., June 14, 1906. The association was called to order by the president, Dr. Mogridge. Communications from absent members were read.

Members present: Doctors Fernald, Wilmarth, Murdoch, Smith, Johnson, Keating, Kutnewsky, Whittington, Mogridge, Velura Powell, and Rogers; Messrs. Weissbrodt and Carroll; Mrs. Murdoch, Mrs. Powell, Miss McLean, Miss Gundry, and Miss Smith. There were present as visitors the assistant physicians, teachers and steward of the Iowa institution; Miss Ella Frazee of the South Dakota School, and Misses Johnston, Stewart, McRoberts, Horton, LaSelle, Park and Dillingham, teachers of the Minnesota School for Feeble-Minded; Miss Elloise Rogers and Arthur Rogers, of Faribault; Dr. J. L. Bolton, Lincoln, Neb., with wife and daughter; Dr. Geo. H.

Bicknell, Omaha, Neb.; Dr. M. N. Volding, Cherokee, Ia., Dr. Mackin, Clarinda, Ia., Dr. Deitx, Carson, Ia.; Drs. Seybert and Vestow and Rev. O. May, Council Bluffs, Ia.; Miss Jackson, Falls Church, Va., and Miss Haslet, Polk, Penn.

The secretary moved that a committee of three be appointed to revise the by-laws with reference to the classification of membership and that all persons whose names were proposed at this meeting be invited to take part in the proceedings pending their election under the new law. Motion carried. The president appointed on this committee, Drs. Rogers, W. H. C. Smith and Keating.

The following names were proposed and elected to membership and the names referred to the committee on revision of by-laws for classification; namely, Dr. G. L. Wallace, Dr. Joseph H. Ladd, Dr. Bliss, Waverley, Mass.; Dr. Mills, Polk, Penn.; Dr. William L. Whittington, Marshall, Mo.; Hon. D. C. Thomas, Member Board of Control, South Dakota; Dr. A. R. Schier; Dr. Harry W. Benson, Glenwood, Ia.; Dr. Black, Polk, Pa.; Dr. Walter C. Van Nuys, New Castle, Ind., and Dr. Velura Powell, Red Oak, Ia.

The president announced the following regular committees: On time and place, Dr. W. E. Fernald, Miss Mattie Gundry, and Mr. Carroll; on organization, Dr. J. M. Murdoch, Dr. Wilmarth and Professor Weissbrodt.

The association then proceeded to the reading and discussion of papers. The first paper, To Whom May the Term, Feeble-Minded, Be Applied? was read by Dr. A. W. Wilmarth, Chippewa Falls, Wis. (See p. 203) Discussion followed.

The President: The next paper on the program is, Lack of Professional Knowledge Concerning Feeble-Minded, by Dr. W. H. C. Smith, of Godfrey, Ill.

The President: The paper is now open for any discussion. I understand that Dr. Polglase, who was to have had a paper on the subject of The Epileptic in Institutions for Feeble-Minded, will not be with us, so, in view of that fact, while we are talking on this subject it might be well to take up the subject of the epileptic.

Dr. Rogers: I do not know what Dr. Polglase's idea is with regard to caring for epileptics in institutions for feeble-minded, but I should certainly agree with Dr. Smith that our states should look toward the development of independent epileptic colonies. Minneso-

ta, as you know, provides for the care of her epileptics and feeble-minded under the same administration, and the last legislature added the words, "And Colony for Epileptics" to the original name of Minnesota School for Feeble-Minded. I believe that a permanent arrangement involving their joint care is entirely wrong. On the other hand, the tendency of chronic epilepsy is toward mental degeneration and the care of a large percentage of cases that would come to an institution in its earlier history would require just the same care that adult feeble-minded would require. Yet I believe in our organization we should always both in our structural arrangement, in our administrative work and in our curative systems, keep in view the typical cases of the colony class. I believe a colony for epileptics is essentially different, viewed from that standpoint, from the school for feeble-minded.

Discussion of Dr. Smith's paper followed.

The President: If there is nothing further to discuss, we might change, the program a little and hear Dr. Bicknell, of Omaha, on The Influence of Defective Sight and Hearing on Mental Development. Paper read and discussed. (See Vol. X1.)

The President: If there is nothing further we will ask Dr. Bullard to read a paper on the Classification of the Feeble-Minded.

Paper read and discussed. (See Vol. X1.)

Dr. Keating: I move that a vote of thanks be given Drs. Bicknell and Bullard for the papers they so kindly read to us. Motion was responded to by unanimous vote.

The President: We will resume the reading and discussion of the papers at 2 o'clock to-morrow afternoon.

After the adjournment of this session the institution band, under the management of Director E. H. Schulhof, gave a beautiful musical program on the lawn. The evening was devoted to a reception affording an opportunity for the members to meet the citizens of Glenwood.

Friday, June 15th.

The forenoon was devoted to visitation of the schools.

At 2, P. M., the association met in the Assembly Hall and listened to the President's annual address. (See Vol. X1.)

The President: We will next listen to a paper by Professor Weissbrodt on Speech Defects and Some Remedies.

The President: We would like to hear from the members in discussion of this paper. (See Vol. X1.)

The President: If there is nothing further, we will pass to the paper of Dr. Murdoch, on Psychic Treatment of the Mental Defect-

ives.

Reading of the paper and discussion followed. (See page 220)

The President: I forgot to say that we shall be happy to hear from any visitors present. We are not confining the discussion to the members of the association alone. We were to have had a paper from Prof. Johnstone of Vineland, N. J. I am just in receipt of a telegram from him as follows:

It is impossible to leave. Much disappointed. Best wishes for a splendid meeting.
E. R. Johnstone.

As Dr. Bullard, of Omaha, found it would be impossible to be here this afternoon, we will next hear from Dr. Johnson on The Segregation and Permanent Detention of the Feeble-Minded. (See page 230.)

At 10, P. M., the association met for a business session in the office of the President.

Dr. Rogers of the committee on by-laws reported as follows:

Your committee recommends, first, that the membership of the association be classified under the following heads:
(a) Active membership.
(b) Associate membership.
(c) Honorary membership.
Second: That the active membership constitute the governing body of the association, receiving all the proceedings and benefits pertaining thereto; that the associate members shall have all the privileges of active members, except that of voting upon the business of the association, and that the honorary members shall be entitled to take part in all discussions of the association.
Third: The annual dues shall be as follows:
For active members, $5.00.
" associate members, $2.00.
Fourth: Your committee also recommend that the name of the association be changed to the following:
"American Association for the Study of the Feeble-Minded."

Respectfully submitted,
A. C. Rogers.
W. H. C. Smith.
F. W. Keating.

On vote the report of the committee was unanimously adopted.

Dr. Murdoch of the committee on organization reported as follows: Dr. W. H. C. Smith, President; Dr. Charles Bernstein, Vice President; Dr. A. C. Rogers, Secretary and Treasurer; Mrs. Isabel Barrows, official reporter; editorial staff for the Journal, Dr. A. C. Rogers, editor-in-chief; Dr. W. E. Fernald, Dr. A. W. Wilmarth, Dr. M. W. Barr, Dr. Geo. Mogridge, Dr. A. R. T. Wylie, associate editors.

On motion the report was unanimously adopted.

Dr. Fernald of the committee on time and place reported in favor of Boston as the next meeting place, exact time to be left to the executive committee.

On motion the report was unanimously adopted.

Dr. Keating in a few felicitous remarks paid an appropriate trib-

ute to the character of the work seen in the Iowa institution for Feeble-Minded, and moved a vote of thanks on the part of our association to Dr. Mogridge and the gentlemen outside of our association who have arranged and carried out such an excellent program, and to the Doctor, his wife and associates for the generous hospitality extended during the entire session.

The motion was passed by rising vote and the association adjourned.

TREASURER'S REPORT, 1905-1906.

Cash Dr.

Balance on hand, June, 1905	$189.91
To cash dues, 1902	5.00
" " " 1903	15.00
" " " 1904	75.15
" " " 1905	90.00
" " " 1906	5.00
" " Sale of decennial volumes	9.00
" " " " Journals	139.87
" " Advertising	4.00
	$532.93

Cash Cr.

By Engraving (cuts)	$ 7.10
" Proof reading and clerical work	40.00
" Postage	3.58
" Express	2.36
" Type	13.72
" Printing of Journals (nine issues)	2 35.00
" Binding of Journals	13.00
	$ 314.79
Balance on hand	218.14
	$ 532.93

Addresses, presidents' annual:
Murdoch, J. M., at Washington, D. C., 1903, 67, vol. 7.
Johnstone, E. R., at Faribault, Minn., 1904, 63, vol. 8.
Beaton, A. H., at Vineland, N. J., 1905. 121, vol. 9.
Adolph M., notes on, 49, vol. 8.
Advance in the medical field, 221, vol. 10.
After-care, in Birmingham, 184, vol. 10; uselessness of in redemption work, 185, vol. 10; committees on recommended, 71, vol. 7.
Arrested mental development, etiology of, 9, vol. 7.
Asexuation, bill for, lost in Penn, through timidity of governor, 8. vol. 7; ever justifiable? 92, vol. 9; attitude toward in Europe, 128, vol 9; results of 129, vol. 9.
Association, the:
Twenty-fifth annual session at Baltimore, Md., 1901, 12, vol. 6.
Twenty-sixth annual session at Fort Wayne., 1902, 86, vol. 6.
Twenty-seventh annual session at Washington, D. C., 1903, 94, vol. 7.
Twenty-eight annual session at Faribault, Minn., 1904, 84. vol. 8.
Twenty-ninth annual session at Vineland, N. J., 1905, 120, vol. 9; name of, changed, 237, vol. 10.
Ataxia, tabetic, treatment of by means of exercise, 64, vol. 9.
Autopsies, importance of, 11, vol. 8.

Backwardness, speech as a factor in diagnosis and prognosis of, 80, vol. 6.
Baker, Miss, 76, vol. 9.
Bancroft, Margaret, plea for psychological investigation, 50, vol. 7; light through broken windows, 54, vol. 9.
Barr, M. W., the imperative call of our present to our future, 5, vol. 7; what can teachers of normal children learn from teachers of defectives? 55, vol. 8; classification of defectives, 29, vol. 9; book by, 59, vol. 9.
Bernstein, Charles, discussion, 108, 110, vol. 9; importance of taking temperature of the feeble-minded, 164, vol. 10.
Blalock, Grace, discussion, 12, 75, vol. 9.
Bolton, Dr. J. L., on backward children, 212, vol. 10; 234, vol. 10.
Borderline case—on the right side of the line, 47, vol. 9.
Bourneville, M., idiocy with pachydermical cachexia, 1, vol. 6.
Brain, the—why does it not develop in the feeble-minded? 10, vol. 7; functions of localized, 79, vol. 9; educated through activity, 81, vol. 9.
Bullard, W. N., etiology of feeble-mindedness, 15, vol. 7; importance of autopsies well reported, 11, vol. 8.
Burr, C. W., insanity at puberty, 150, vol. 10.
Butler, Rev. Mr., address by, 88, vol. 8.

Call of our present to our future, the imperative, 5, vol. 7.
Campbell, E. Paul, surgical treatment of Bright's disease, 22, vol. 9.
Carroll, Dr., 217-218, vol. 10.
Carson, J. C., feeble-minded and epileptic, 78, vol. 8; review of legislation for feeble-minded, 167, vol. 10.

Case histories, notes on, 19, vol. 7.
Cataract, lamellar, case of, 82, vol. 7.
Chase, R. Howland, general paresis, 63, vol. 9.
Cheney, F. E., 39, vol. 8.
Circulation, defective, cause of feeble-mindedness, 18, vol. 6.
Classification, the question of—editorial, 53, vol. 6.
Compton, Fanny A., what four months of training did for Walter, 41, vol. 8.
Consumption a "house disease," 70, vol. 8.
Contagious diseases in institution life, 195, vol. 10.
Convulsions, infantile, precipitated by poisoning from the gastro-intestinal tract, 23, vol 7.
Corporal punishment, discussion of, 42, vol. 7.

Deafness, 28, vol. 6.
Defective children in public schools, 25, vol. 8; experience of five years in teaching of, 39, vol. 8.
Defects of character caused by physical defects, 20, vol. 6.
Defectives, elimination of from society, 65, vol. 8; what shall we do with them? 93, vol. 9.
Degeneracy, the sources of must be controlled, 95, vol. 9.
Degenerates essentially unimprovable, 94, vol. 9.
Dillingham, Agnes M., notes on Adolph M., 49, vol. 8; 9, 10, 74, vol. 9.
Discipline, 38, vol. 7; editorial on, 62, vol. 7.
Diseases of mother, effects on child, 18, vol. 8.
Discussions: on textile work, 9, vol. 9; on institution meetings, 44, vol. 9; on speech training, 140, vol. 10; on borderline case, 49, vol. 9; on temperature taking, 165, vol. 10; on nature study, 73, vol. 9; on physical training, 107, vol. 9; on hydrotherapy, 116, vol. 9; on defective eyes, 183, vol, 10; on tuberculosis, 71 vol. 8; on restraint of feeble-minded, 207, vol. 10.
Doren, Augustus Adolphus, sketch of, 66, vol. 9; in memoriam, 118, 119, vol. 9.
Dull and defective children, notes on, 62, vol. 9.

Educational methods in special classes, 86, vol. 7.
Education, should the public school system be broadened? 35, vol. 8; common school system of, not adequate for the feeble-minded, 139, vol. 10; when detrimental, 205, vol. 10.
Employment of the feeble-minded, 184, vol. 10.
Encouragement, the gospel of, 41, vol. 7.
Entertainments in training feeble-minded, 75, vol. 8.
Epileptics, proportion of in institutions for feeble-minded, 13, vol. 6; care and dietary of, 14, 15, vol. 6; parasite in the blood of, 30, vol. 7; hyoscine hydrobromate in treatment of, 48, vol. 8; notes on care of, 170, vol. 10.
Epilepsy hystero-, three cases of, 34, vol., 7; advance in knowledge of, 64, vol. 7; reduction of, by cold applications, 65, vol. 7. notes on treatment of, 21, vol. 9.
Europe in advance of America in treatment of defectives, 42, vol 6.
Exercise, systematic, for treatment of feeble-minded, 27, vol. 6.
Eyes of the feeble-minded, 80, vol 7;

177, vol. 10; table of defects, 181, vol. 10.

Faribault institution for feeble-minded, hall of opened, 87, vol., 8.

Feeble-mindedness, etiology of, 15, vol. 7; inaccurate use of the term in America, 32, vol. 8; ratio of everywhere the same, 71, vol. 8; tuberculosis source of, 71, vol. 8; "cure" of feeble-mindedness—editorial, 60, vol. 8.

Feeble-minded, the—control of by the state, 204 vol. 10; descriptions and types of, 44, vol. 6; special abilities of, 45, vol. 6; destination of, 89, vol. 7; discharge of, 205, vol. 10; growth of in height and weight, 1, vol. 8; distinct from imbeciles, 26, vol. 8; teaching words to, 47, vol. 8; review of work for, 86, vol. 8; educational classification of, 38, vol. 9; necessity of special attention to, 50, vol. 9; importance of taking temperature of, 164, vol. 10; the eyes of, 177, vol. 10; employment of, 184, vol. 10; reasonable development of, 205, 206, vol. 10; to whom may the term be applied? 203, vol. 10.

Feeble-minded and epileptic, 78, vol. 10.

Fernald, W. E., farm colony in Mass., 74, vol. 7; mentally defective children in the public schools, 25, vol. 8; on commitment and discharge of feeble-minded, 207, vol. 10.

Fitts, Ada M., practical textile work for feeble-minded children, 8, vol., 9.

Frenkel, H. S., treatment of tabitic ataxia by means of exercise, 64, vol. 9.

Growth of feeble-minded in weight and height, 1, vol. 8.

Gould, Judge O. B., address by, 88, vol. 8; 49, vol. 9.

Gundry, Miss Mattie, 108, vol. 9; 218, vol. 10.

Hannon, Miss, 107, vol. 9.

Hart, Olive E. D., correcting speech defects, 48, vol. 6.

Heart and circulation in the feeble-minded, 22, vol. 7.

Heart disease in the insane, 25, vol. 7.

Henninger, C. H., report of three cases of hystero-epilepsy, 34, vol. 7; imbecility and tuberculosis, 68, vol. 8.

Huxley, F. R., small pox in an institution, 190, vol. 10.

Hydrotherapy in treatment of feeble-minded, 112, vol. 9.

Hyoscine hydrobromate in treatment of epileptics, 48, vol. 8.

Hystero-epilepsy, three cases of, 34, vol. 7.

Idiocy, with pachydermical cachexia, 1, 29, 57, vol. 6; causes of, 18, vol. 6; cretinoid, 64, vol. 6; easily recognized, 68, vol. 6; comparative resume of cretinisim and myxoedematous idiocy, 70, vol. 6; new observations upon, 72, vol 6; best classification of, 15, vol. 7; classes of, 33, vol. 9.

Illinois, corner stone of Logan Hall laid at Beverly Farm, 101, vol. 7.

Illustrations:

Caricatures by precocious child who showed early degeneration, 40, vol. 6; group of microcephalic children, 32, vol. 7; farm-house groups, Templeton, Mass., 75, vol. 7; Narragansett groups,

Templeton colony, Mass., 79, vol. 7; tables and plates showing growth of feeble-minded, 3, 7, vol. 8; portrait of F. M. Powell, frontispiece, 1, vol. 9; portrait of G. A. Doren, frontispiece, 66, vol. 9; physical exercise charts, 97, 106, vol. 9.
Imbecility and tuberculosis, 68, vol. 8.
Industrial training, 8, vol. 8.
Insanity at puberty, 150, vol. 10.
Institution meetings, value of, 39, vol. 9.
Intelligence defects, 2, vol. 7.
Intellectual power gained by manual training, 82, vol. 9.
Iowa institution for feeble-minded, report of pathological work at, 21, vol. 7.
Ireland, W. W., honors to, 83, vol. 9.
Italy, visit to school for defectives at Rome, 63, vol. 7.

Jacob A., Gertrude, systematic, physical training for the mentally deficient, 98, vol. 9.
Japan learning at the Minnesota institution for feeble-minded, 93, vol. 8.
Jelly, A. C., special classes for defectives in reform schools, 158, vol. 10.
Johnson, Dr. A., segregation and detention of feeble-minded, 230, vol. 10.
Johnstone, E. R., discipline, 38, vol. 7; address at Faribault, Minn., 63, vol. 8; discussions, 73, 107, vol. 9; 142, vol. 10.

Keating, F. W., 143, vol. 10; 216, vol. 10.
Kenyon, Dr., 144, vol., 10.
Knight, Helen G., a class in nature study, 72, vol. 9.
Kutnewsky, Dr. J. K., heredity of feeble-mindedness, 227, vol. 10.

La Selle, Miss, 13, vol. 9.
Legarde Ellen, should scope of the public school be broadened? 35, vol. 8.
Legislation for defectives, recent, 83, vol. 6; necessary legislation, 68, vol. 7; in various states, 78, vol. 8; review of, 167, vol. 10.
Light through broken windows, 54, vol. 9.
Lincoln, D. F., special classes, 83, vol. 7; a borderline case, 47, vol. 9; 142, vol. 10.

Makuen, G. Hudson, speech as a factor in the diagnosis and prognosis of backwardness, 80, vol. 6; speech training in developing the feeble-minded, 136, vol. 10.
McLean, Margaret, discussion, 11, 12, 64, 76, vol. 9; 218, vol. 10.
Manual instruction, forms of, 28, vol. 8.
Marriage contract, regulation of, 95, vol. 9.
Massachussetts, farm colony in, 74, vol. 7.
Medicine, uselessness of, 113, vol. 9.
Mental capacity tests, 161, vol. 10.
Mental deficiency, etiology of, 16, vol. 8; experimental studies in, 1, vol. 9; congenital, 34, vol. 9; definitions of, 55, vol. 9.
Mentally deficient children in the public schools, 25, vol. 8.
Mental pathology, some recent work in 1, vol. 7.
Metcalf, Miss, 142, vol. 10.
Microcephalic children, notes on the history of five, 33, vol. 7.
Milroy, Dr., 224, vol. 10.
Minor, Miss, 147, vol. 10.
Minutes of the association, 12, 86,

vol. 6; 94, vol. 7; 84, vol. 8; 120, vol. 5; 234, vol. 10.
Mogridge, George, notes on case histories, 19, vol. 7; discussions, 53, 75, 108, vol. 9; 143, vol. 10.
Morals, 45, vol. 8.
Morrison, Alice T., morals, 45, vol. 8; entertainments, 75, vol. 8; training a special sense, 46, vol. 7.
Murdock, Mrs. Lillian, physical training, 78, vol. 9.
Murdoch, J. M., notes on microcephalic children, 33, vol. 7; address, 67, vol. 7; 77, vol. 9; 211, vol. 10; psychic treatment of mental defectives, 220, vol. 10.

Name of association changed, 237, vol. 10.
Nash, C. E., industrial training, vol. 8; value of institution meetings, 39, vol. 9.
Nash, Elizabeth Daniels, special schools for defective children, 42, vol. 6.
Nature study, a class in, 72, vol. 9.

"Open the window—light and God stream in," 53, vol. 7.

Paranoia, original, 152, vol. 10; cases of, 153, vol. 10.
Parasite in blood of epileptics, 30, vol. 7.
Paresis, general, R. H. Chase's work on, 63, vol. 9.
Pathological bureau suggested by Dr. Rogers, 14, vol. 8.
Pathological work at Iowa state institution for feeble-minded, 21, vol. 7.
Patterson, Louise, hydrotherapy in treatment of feeble-minded, 112, vol. 9.
Physical training as educational factor, 78, vol. 9; problem of complex, 80, vol. 9; systematic, for the mentally deficient, 98, vol. 9.
Pinsent, Mrs. Hume, employment of the feeble-minded, 184, vol. 10.
Poisoning of parents, effects of on child, 20, vol. 8.
Poor law questions, 50, vol. 6.
Powell, F. M., memorial paper on, by Dr. A. C. Rogers, 15, vol 9.
Precocity with early degeneration, case of, 39, vol. 6.
Prenatal influences in causing idiocy, 21, vol. 6.
Psychic treatment of mental defectives, 220, vol. 10.
Psychological investigation, plea for, 50, vol. 7.
Psychological research report, with blank for examination, 21, vol. 6; sense tests, 24, vol. 6.
Public schools and public school teachers in relation to the feeble-minded, 90., vol. 7.
Public school system, should it be broadened? 35, vol. 8.
Punishment, attitude towards of employe and child, 39, vol. 7; corporal, 42, vol. 7.

Recreation at the Seguin school, 53, vol. 7.
Religion as an influence in life, 92, vol. 8.
Reports from state institutions, 93, vol. 6.
Reports from states, 23, vol. 9.
Rhode Island, methods employed in the Providence schools for backward children, 36, vol. 8.
Richardson, Hubert, the causes of idiocy, 18, vol. 6; the etiology of arrested development, 9, vol. 7; etiology of mental deficiency, 16, vol. 8.
Risley, S. D., is asexuation ever justifiable? 92, vol. 9.

Rogers, A. C., case of special precocity with early degeneration, 39, vol. 6; review of work for defectives, 86, vol. 8; difficulty of interesting men in class work, 45, vol. 9; difficulties in determining possibilities of children placed in institutions, 50, vol. 9; the training school—editorial, 84, vol. 9; discussions, 42, vol. 7; 7, 74, 109, 110, vol. 9; 143, 145, vol. 10; on heredity, 228, vol. 10.
Rogers, Miss Elloise, 234, vol. 10.
Rogers, Arthur, 234, vol. 10.

School courses overcrowded, 59, vol. 8.
Schoolroom suggestions, 169, vol. 10.
Segregation and permanent detention of the feeble-minded, the, 230, vol. 10.
Seguin school, recreation, 53, vol. 7.
Selection, natural, the method of progress of the race, 92, vol. 9.
Sexes, separation of, 7, vol. 7.
Smallpox in an institution, 190, vol. 10.
Special classes for defectives in reform schools, 158, vol. 10.
Special classes, 69, 83, vol. 7; 31, vol. 8; 122, vol. 9.
Special privileges in institutions, 40, vol. 7.
Special schools for defective children 42, vol. 6; 26, vol. 8.
Special sense training, 46, vol. 7.
Speech as a factor in diagnosis and prognosis of backwardness in children, 80, vol. 6.
Speech defects, correcting, 48, vol. 6.
Speech-training in development of feeble-minded, 136, vol. 10.
State institution reports, 93, vol. 6.
Sterling, Mary Blackwell, "Open the windows—light and God stream in," 53, vol. 7.
Stewart, Maude, how the boys learned to tell time, 22, vol. 8.
Suggestion as an agency of improvement, 221, vol. 10.
Suprarenals, functions of, 13, vol. 7.
Surgeon's kinfe for cutting off supply of defectives, 233, vol. 10.

Taylor, J. M., heart and circulation in the feeble-minded, 22, vol. 7.
Teaching defective children, five years experience in, 39, vol. 8.
Teachers of normal children, what can they learn from teachers of defectives? 55, vol. 8.
Temperature, importance of taking of the feeble-minded, 164, vol. 10.
Textile work for feeble-minded children, 8, vol. 9.
Thomas, D. C., 226, vol. 10.
Thompson, Dr., discussion on borderline case, 50, vol. 9.
Thorington, James, the eyes of the feeble-minded, 80, vol. 7; 177, vol. 10.
Thymus gland, function of little known, 13, vol. 6.
Thyriod gland, the—treatment of cretinisin, 18, vol. 6; absence of as cause of defects, 68, vol. 6; cessation of function of producing cretinism a great modern discovery, 11, vol. 7; administration of the thyriod remedy, 13, vol. 7; increases in mother during pregnancy, 21, vol 8.
Time, how three boys learned to tell, 22, vol. 8.
Training a special sense, 46, vol. 7; discussion of, 49, vol. 7.
Training school, the—editorial 84, vol. 9.
Training, what four months of did for Walter, 41, vol. 8.
Treasurer's report, 238, vol. 10.
Tuberculosis among the feeble-minded, 68, vol. 8.

Tuberculosis, poisons secreted by, 69, vol. 8; source of feeble-mindedness, 71, vol. 8; large percentage of deaths from, 71, vol. 8.

Untrainables, separation of, 6, vol. 7.

Visit to school for feeble-minded at Rome, 63, vol. 7.

Whittington, W. L., commitment and prognosis of the feeble-minded, 209, 219, vol. 10.

Wilbur, C. T., first man in America to train feeble-minded, 86, vol. 8.

Willhite, O. C., report on pathological work in Iowa inst. for feeble-minded, 21, vol. 7.

Wilmarth, A. W., discussion on borderline case, 52, vol. 9; to whom may the term, feeble-minded, be applied? 203, vol. 10.

Women nurses take more interest in class work than men, 45, vol. 9.

Work and food of the feeble-minded, 78, vol. 7.

Work for defectives reviewed, 86, vol. 8.

Wylie, A. R. T., scheme for psychological investigation, 21-23, vol. 6; recent work in mental pathology, 1, vol. 7; growth of feeble-minded in weight and height, 1, vol. 8.

A
Bookplate for the
SDC Library Trust
Adopted in 1991

3 9097 00991687 6

NOT FOR
HOME CIRCULATION

309R30